

**SECOND VICTIMS & PEER SUPPORT PROGRAMS IN MARYLAND
HOSPITALS:
A STUDY OF PERCEIVED NEED FOR ORGANIZATIONAL LEADERS**

by

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ABSTRACT

Problem Statement: Second victims are healthcare providers who are emotionally traumatized after experiencing an unanticipated adverse event. To support second victims, organizations can provide a dedicated support program for their employees. The scope of this study will include the perceptions of patient safety leaders on the concept of supporting second victims and on developing a second victim support program.

Methods: A literature review was conducted on second victims, the need for support programs, policy implications, the Malcolm Baldrige Criteria for Performance Excellence, stress disorder, and examples of second victim support programs in healthcare and in non-healthcare settings. In-depth, semi-structured interviews were conducted with 43 patient safety representatives from 38 acute hospitals in Maryland. Descriptive statistics were generated for both hospital and participant characteristics. Data were analyzed in the QSR *NVivo10* software using a mixed-methods approach to generate codes and extract themes from the interviews

Results: The response rate was 83%. All participants believed that they and their executives were aware that the second victim problem exists. Although participants varied in their perceptions of whether a second victim program would be helpful, all of the participants agreed that hospitals should offer organizational support programs for their own staff that become second victims. Although some organizations are attempting to promote a ‘just culture’ in responding to events, there continues to be stigma attached with: (1) speaking up during a root-cause-analysis and (2) accessing support if it was

offered to employees. There continue to be gaps in organizational services that are provided regarding timeliness of intervention. Also, there is a need for peer support for both the second victim and for the individuals who provide support. Approximately 18% of the Maryland hospitals offer a second victim support program. Details on the structure, accessibility, and outcomes for these programs are described.

Conclusions: The second victim problem is recognized in all Maryland hospitals. However, providers face barriers in accessing them. Future efforts should assess the need for second victim programs from the perspectives of second victims themselves as well as on developing tools to evaluate the effectiveness of these programs.

Dr. Albert Wu (doctoral advisor)

Dr. Carl Latkin (thesis reader)

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BACKGROUND

The Institute of Medicine's "To Err Is Human" report that revealed as many as 98,000 deaths occur in the U.S. annually in healthcare due to medical errors¹. While patients and their families suffer from these incidents, health care providers can also be affected by the same events and are referred to as the "second victims"². In each of these cases, when the health care providers knew about the outcome, they were likely to be emotionally and/or physically impacted by the event. Second victims experience short-term feelings of anxiety, doubt, restlessness, fear—among other feelings. In the short term, their performance may be impaired, posing a potential threat to the care of other patients. In the longer term, some health care providers experience symptoms similar to those of post-traumatic stress syndrome, and may question their ability to take care of patients, quit their jobs, leave their professions, and in some cases even commit suicide³. If emotional distress is not mitigated properly, these health care providers can be impaired in their ability to delivery quality patient care.

Although health care organizations often carefully evaluate system problems after an unanticipated patient-related event, little to no attention has been given to the caregivers that are involved. An important way to understand the second victim problem and the adequacy of support structures is from the perspective of organizational leaders. Leaders are responsible for supporting their workers and can provide information on the needs and potential benefits of a second victim support program within their organizations.

Although there are existing support programs to assist employees, such as employee assistance and wellness programs, there is no standard support program specifically tailored for second victims after adverse events.

STUDY AIMS

The overall goals of this study are to: (1) assess the perceived need by organizational patient safety leaders to implement a formal second victim support program, (2) determine the existing support services available to second victims nationally and internationally based on the literature, and (3) identify best-practices for second victim support programs currently provided by selected Maryland hospitals

The specific study aims of this study are:

Study Aim #1: To review the literature on second victims, psychological trauma, and support interventions to treat second victims

1.1: To assess and quantify the prevalence of second victims in the literature

1.2: To describe the treatment of post-traumatic syndrome and the treatment of emotional trauma

Study Aim #2: To assess the perceptions of patient safety officers of the extent of the second victim problem in their organization, and the extent of support services available to second victims

- 2.1: To assess patient safety officers' perceptions of the extent of the second victim problem in their organizations and impact of adverse events on second victims following an unanticipated adverse event
- 2.2: To assess patient safety officers' role and/or attitudes in providing an organizational support structure for second victims seeking help after an adverse event
- 2.3: To identify existing peer support structures in Maryland hospitals and describe their structure
- 2.4: To identify and quantify the extent to which support structures are desired in Maryland hospitals

SIGNIFICANCE OF THE STUDY & RATIONALE FOR RESEARCH

Since the issue of second victims is ubiquitous, the scope of this study will include the perceptions of organization patient safety leaders of the concept of second victims and on developing a support program to assist their colleagues and caregivers in their organization. Organizational support for second victims is one facet of a comprehensive effort to establish a non-judgmental and just culture of safety within healthcare institutions⁴. Although some institutions have developed their own programs, there is no standardized or exemplar, customizable second victim program for hospitals has yet to be developed. Findings in this dissertation offer insights on beneficial features and services that can be incorporated into a second victim peer support program.

This study also builds on an ongoing peer-support effort for health care workers at the Johns Hopkins Hospital, referred to as the RISE team. The Hopkins RISE team is collaborating with the Maryland Patient Safety Center to develop a state-wide program that can guide other hospitals to establish their own second victim support program. This collaboration titled “Implementing a Peer Support Program at Your Organization” is focused on increasing awareness of the second victim problem in Maryland hospitals as well as training hospital representatives on how to develop and implement a second victim support structure within their organizations. In assessing the perceptions of Maryland patient safety officers about implementing second victim support programs, this project will facilitate the execution and implementation of the collaboration.

Furthermore, this study will have implications for policy changes as they relate to organizations that are interested in developing formal provider support structures for employees to access after an adverse event or medical error happens. It is important to note that the United States Joint Commission is currently revising its sentinel events policy. Within this policy, there is an emphasis on recommending that healthcare institutions recognize second victims’ needs and establish a support structure to assist them through coping with traumatic medical events⁵. Most importantly, this study will assist organizations in deciding if and how support programs are beneficial in addressing second victims’ needs in acute care hospitals.

This research study also has the potential to lead to indirect societal benefits in that implementing a support program will foster a healthier workforce that is functions consistently at a high level, and that delivers good quality of care. The development of a standard support structure for employees and the evaluation of the perceptions of patient safety officers will contribute to this goal.

DISSERTATION ORGANIZATION

This dissertation is organized into five chapters, including two manuscripts and appendices. The first chapter introduces the background, the study aims, and significance of the study and rationale for the research. The second chapter presents a literature review on second victims, the need for support programs in healthcare, policy implications, the Malcolm Baldrige Criteria for Performance Excellence, acute stress reaction and post traumatic stress disorder, examples of second victim support programs in healthcare settings and examples of support programs in non-healthcare settings. The third chapter (Manuscript #1: “Does One Size Fit All? Assessing the Need for Organizational Second Victim Support Programs”) focuses on obtaining Maryland patient safety leaders’ perspectives on the extent of the second victim problem, the availability of emotional support services, and the need for organizational second victim support programs among acute care healthcare institutions in the State of Maryland. The fourth chapter (Manuscript #2: “Do Maryland Hospitals Support Second Victims: Collective Insights from Patient Safety Leaders in Maryland Hospitals”) presents results

on the extent to which organizational second victim support is perceived as desirable by acute care hospitals in Maryland, the role of employee assistance programs in supporting second victims, and existing second victim support programs. The final chapter describes a discussion of the findings from the three manuscripts and presents implications for policies and future research. The appendices include the IRB decision letter, study recruitment materials, data collection forms and questionnaires.

In summary, this research study will aim to address some of the gaps in the second victim literature related to second victim support programs. The study captures the perceptions of patient safety leaders in Maryland hospitals in relation to assessing the extent of the second victim problem, desirability of support, and availability for support. Additionally, the development and evaluation of a second victim support program within the Johns Hopkins Hospital will be explored.

LITERATURE REVIEW & CONCEPTUAL MODEL

This section provides an overview of aspects of the published literature relevant to the empirical work on the second victim described in this dissertation.

I. DOMAINS OF THE LITERATURE

A. Patient Harm & Second Victims

Expectations run high in health care. Too often, healthcare providers are expected to exemplify perfection when caring for patients⁶. When patients are harmed rather than helped by health care, especially as a result of errors, both patients and their providers can be shocked and disappointed. In fact, these injuries happen more frequently than imagined. In 1999, the Institute of Medicine's (IOM) "To Err Is Human" report indicated that as many as 98,000 Americans die in hospitals every year due to medical errors⁷. As striking as this number is, these incidents typically involve more than one care provider. Care providers who are themselves emotionally traumatized by these incidents are referred to as the 'second victims.' Very few of these incidents are caused solely by individual errors. In addition, individuals may be affected even if they were only witnesses to an incident. A second victim is a healthcare provider who is emotionally traumatized after experiencing an unanticipated patient adverse event or other stressful patient-related event and has difficulty coping with his or her emotions; whereas the patient and family are considered to be the first victims⁸.

Second victims can suffer immensely on both a personal and professional level. Not only can this negatively affect the healthcare provider, but it can also impact efforts to build a safer health system. The term ‘second victim’ was coined by Dr. Albert Wu in 2000⁸. Since then, a growing number of studies have referenced second victims and described the impact of adverse events on healthcare providers. Generally, second victims undergo a cascade of feelings, with short-term symptoms characteristics of acute stress reaction, and long-term signs and symptoms, similar to those experienced by individuals with post-traumatic stress disorder (PTSD). These may include anxiety, depression, insomnia, fear, among others^{9, 10}. Other studies indicate that second victims reported emotions related to self-blame, self-doubt, anger, guilt, troubling memories, worry about being involved in a lawsuit, fear, shame, shock, denial, and the embarrassment of requesting psychological support^{10, 11, 6, 14}. Second victims also go through social withdrawal, isolation, and feel that the organization has abandoned them⁶.

In addition to experiencing these feelings, second victims often feel personally responsible for the outcome, feel as if they have failed their patients, and second-guess their clinical skills⁷⁷. In some instances, second victims agonize about what their colleagues think, replay the sequence of events in their memory, and fear the consequences of speaking up to discuss the error¹². Due to this fear, some second victims suffer alone and do not voice their thoughts about the mistakes they have either contributed to or witnessed¹³. As a result of not effectively coping with their emotions, some second victims are unable to forgive themselves¹⁴.

B. Prevalence of Second Victims

The prevalence of second victims has been reported in only a few studies that showed rates of 10.4%¹⁵, approximately 30%⁷⁸ and 43.3%¹⁶. The study that concluded a rate of 10.4% included otolaryngologists who described an error they were involved in during the past 6 months¹⁵. A second study that reported a 30% prevalence of second victims in a sample of medical students, physicians, and nurses who reported personal problems related to anxiety, depression, and challenges in their ability to provide care during the past 12 months⁷⁸. In a third study, 43.3% of physicians, nurses, and pharmacists, and other healthcare professionals indicated that the error had a moderately severe or severe harmful effect on their personal lives¹⁶.

C. Impact of Error on Second Victims

The occurrence of adverse events has an impact on the second victim, the healthcare team, and the organization. As mentioned earlier, the second victim can develop clinical conditions, particularly acute stress reaction or PTSD. To manage and treat these conditions in other situations outside of medical care, a variety of interventions have been offered based in part on the severity of the second victim's response to the error.

1. Clinical conditions: Acute Stress Reaction & Post-Traumatic Stress Disorder

Second victims who experienced a traumatic event often undergo signs and symptoms similar to those who develop PTSD. According to the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV-TR), traumatic events, such as injury or death, have the ability to trigger fear, horror, or helplessness in an individual¹⁷. Individuals exposed to these types of events have an increased likelihood of developing posttraumatic stress disorder (PTSD), depression, panic disorder, anxiety disorder, and substance abuse¹⁸.

The diagnostic criteria for PTSD include⁴⁸:

- A) Exposure to the traumatic event that includes both: (1) risk of serious injury or death and (2) a response to the event that encompasses fear or helplessness,
- B) Persistent re-experiencing of the event,
- C) Emotional numbing and persistent avoidance of stimuli or behaviors associated with the trauma,
- D) Repeated, increased arousal of physiological responses, such as startled responses, insomnia, anger, lack of concentration,
- E) Continuation of symptoms for more than one month, and
- F) Significant impairment to various domains of life activity, including social relations and occupational activities.

Although PTSD was first recognized among military veterans, other traumatic events that can lead to PTSD involve interpersonal violence (i.e. rape, assault, and torture), exposure to life-threatening accidents (i.e. motor vehicle accidents, plane crashes, bombings) or natural disasters (i.e. floods, fires, earthquakes)¹⁹. PTSD can also develop in individuals

who have witnessed unnatural death, violent harm, or injury and who have known that a loved one is in a similar situation²⁰. Many studies have shown that PTSD is associated with impaired daily functioning and quality of life, including physical health^{21, 22}.

PTSD includes three types of symptoms: re-experiencing, avoidance, and hyper-arousal⁴⁸. Re-experiencing symptoms include flashbacks in reliving the trauma, bad dreams, frightened thoughts; these can interfere with an individual's daily routine. Words, objects, or similar situations can remind the individual of the event or trigger the experience. Avoidance symptoms involve staying away from places, things or objects that remind the individual of the event. Feelings of emotional numbness, guilt, worry, depression, and losing interest in activities that were enjoyable to the individual in the past are also symptoms of avoidance. These types of symptoms are triggered by thoughts or objects that remind the individual of the event and may ultimately cause the individual to change his/her daily routine. Finally, rather than being triggered, hyper-arousal symptoms are constant and can make individuals feel stressed, angry, tense, have difficulty sleeping, or difficulty performing daily tasks, such as eating, sleeping, or concentrating²³. It is common for individuals to experience some of these symptoms following a traumatic event. However, some individuals experience severe symptoms that may last anywhere from a couple of weeks to one month; this is called acute stress disorder (ASD). When these symptoms last for more than 3 months, this is defined as PTSD^{24, 48}. ASD does not always lead to PTSD, but is associated with an increased risk of developing PTSD²⁵.

Research indicates that PTSD can also occur in individuals who witness traumatic events in the workplace, such as firefighters, ambulance service workers, emergency department staff, and healthcare providers^{26, 27, 28}. There are some situations that increase the risk of PTSD, including seeing a dead body, or feeling that one is going to die. Although the circumstance differ, this includes healthcare providers, who can experience physical and psychological distress, negative emotional responses, and impaired performance—all of which can ultimately impact patient care^{29 30}.

There are three main types of treatment for an individual with PTSD: counseling, medication, and/or referral to more comprehensive treatment. Counseling includes supporting and educating the individual in a safe environment⁵⁰. An individual is referred to specialized treatment if initial treatments have not been effective or if patients experienced side effects from the medication⁵⁰. Even through brief cognitive behavioral therapy (CBT)—a psychotherapeutic approach that focuses on the relationship between thoughts, feelings and behaviors—may reduce symptoms in those who have ASD, there is limited evidence of best practices to treat individuals who have been exposed to a traumatic event³¹.

In fact, the use of early interventions, their effectiveness, timeliness and mode of intervention continue to be debatable⁵⁵. Several studies, systematic reviews and meta-analyses of studies with PTSD post-intervention include: (Group 1) interventions for

traumatic events irrespective of symptoms, (Group 2) interventions for traumatic events within 3 months after the event, and (Group 3) interventions for diagnosis of acute stress disorder or PTSD within 3 months after the event⁵⁰. Studies in Group 1 (n=8) indicate no significant differences between those who have received an intervention in comparison to those who have not. Studies in Group 2 (n=15) convey no statistically significant differences between different interventions; however, there were statistically significant differences in favor of CBT-like interventions in comparison to no intervention or supportive counseling at post-treatment assessment. Studies in Group 3 (n=11) also indicated statistically significant differences in favor of CBT-focused interventions. Although these studies included diverse interventions on various populations that ranged from 4-16 hours, results from these studies indicate that no specific intervention can be recommended for conventional use⁵⁵. These results are also consistent with the conclusions that were drawn from a recent systematic review on PTSD, where CBT was the preferable choice for reducing PTSD⁴⁷. This review also concluded that there lacks to be sufficient evidence to support the effectiveness of PTSD treatment interventions⁴⁷. Therefore, future research should focus on exploring strategies to increase effectiveness of interventions, ideal time to offer the intervention, and length of the intervention.

2. Stress Reactions & Distress

Instead of experiencing PTSD-like symptoms, some second victims experience a stress reaction as a result of unanticipated adverse events. According to the literature, stress is the body's reaction to an environmental or external condition. Stress differs from trauma

in that stress is a reaction to external stimuli within the normal range of the human experience, whereas trauma is a life-threatening event that cannot be tackled with the usual coping strategies³². As a result, the sympathetic nervous system is activated which then leads to the fight-or-flight response.

Stress impacts an individual's mental and physical well-being and can be described as a positive condition—eustress, or a negative condition—distress³³. Since eustress tends to be associated with positive qualities, there lacks to be necessary actions to mitigate this response. However, minor distress can be identified, assessed, and monitored. In severe cases, distress can lead to dysfunction, an individual's inability to recognize and successfully fulfill his or her responsibilities; in this case, professional intervention is necessary^{34, 36, 35}.

3. Management & treatment of psychological care

Initially described by Abraham Maslow in his Hierarchy of Needs, basic physiological needs, followed by safety needs, must be met in order to fulfill the higher level growth needs of: affection & support, self-esteem and self-actualization³⁶. In an effort to support individuals who have experienced traumatic events, some professionals make the common mistake of targeting the higher levels of self-esteem and self-actualization. Rather, to address second victims' needs, it is helpful to focus on the safety component instead of targeting the higher levels of the hierarchy. One component of safety is the need to seek personal or physical safety, financial security, and health & well-being. In

the absence of physical safety, individuals tend to experience symptoms related to PTSD. And when health & well-being are compromised, individuals tend to experience stress and are unable to function as they would in a usual manner.

The management and treatment of psychological care varies based on the severity of the event. The Continuum of Care is a model that draws a parallel between psychological care as it relates to medical and surgical care³⁴. In this model, the psychological care begins with psychological first aid, followed by crisis intervention, counseling, and psychotropic meds & psychotherapy; whereas the medical/surgical care starts with physical first aid, basic life support, advanced life support, and ends with medicine and surgery.

This section will focus on the description of the Continuum of Care model for psychological care. The first section of the Continuum includes psychological first aid (PFA). PFA is a strategy used to immediately mitigate emotional distress in the aftermath of a disaster and will be emphasized in more detail later in this review.

The next segment of the Continuum includes crisis intervention. According to Caplan, a crisis is a response to a critical incident, trauma, or disaster where an individual's routine coping mechanisms have been impaired or are in a state of dysfunction³⁷. Crisis intervention is defined as "the provision of emergency psychological care to victims as to assist those victims in returning to an adaptive level of functioning and to prevent or

mitigate the potential negative impact of psychological trauma”³⁸. Crisis intervention differs from counseling in that it encompasses the P-I-E principles—proximity, immediacy, and expectancy³⁹. Since there lacks to be a single standard model of crisis intervention, the principles of crisis intervention have been used by practitioners to mitigate the distress or PTSD symptoms of traumatized individuals^{38, 40, 41, 42, 43, 44, 45}. These include: immediate intervention, stabilization, facilitation of understanding the event, concentration on problem-solving, and restoration of self-reliance⁴⁶. Critical Incidence Stress Management (CISM), is a comprehensive crisis intervention system that consists of multiple crisis intervention components; this will be discussed in greater detail later in this review.

The third part of the Continuum of Care model includes counseling, a type of psychological intervention that offers personal support to helps patients and groups improve their mental health and wellness, and function better⁴⁷. The goal of supportive counseling is to allow an individual to reflect on his or her life situation in a setting where he or she is comfortable and is more likely to cope.

The final segment of the Continuum of Care model is the use of psychotropic medications and psychotherapy to address individuals’ psychological needs. Previous studies suggested that administering medications immediately after an individual experienced a traumatic event might prevent the development of ASD or PTSD⁴⁸. Whereas other studies indicated that although medications have reduced PTSD

symptoms, efficacy in preventing the development of PTSD is not yet known⁴⁹. Furthermore, existing guidelines lack specific recommendations for medications that prevent ASD or PTSD. Additional literature suggests that there is limited evidence for the use of certain medications, particularly selective serotonin reuptake inhibitors (SSRIs) and antidepressants, for individuals who have developed ASD; whereas there has been significant clinical evidence that suggests uptake of these medications for individuals who experience PTSD is promising⁴⁸. As a result, SSRIs have been considered to be the first choice of medications for PTSD treatment. Another type of medication prescribed for individuals who have experienced PTSD are benzodiazepines. However, due to the lack of efficacy in treating PTSD symptoms, benzodiazepines have not been recommended as a choice of treatment. A few studies indicated that second-generation antipsychotic medications (i.e. *olanzapine*, *quetiapine*, and *resperidone*) might be beneficial treatments for some PTSD patients, whereas others might experience intense flashbacks of the event⁴⁸. Lastly, the anticonvulsant medications (i.e. *divalproate*, *carbamazepine*, *topiramate*, and *lamotrigine*) have resulted in therapeutic benefits based on limited studies⁵⁰.

Psychotherapy is a therapeutic interaction between a trained professional and a patient or group of patients that aims to enhance the patients' sense of his or her health and well-being. During this personal interaction, a psychiatrist, psychologist or other mental health provider (i.e. clinical social workers, licensed counselors, or trained practitioner) learns about the patients' condition, feelings, and behaviors, so that they can recommend

and offer healthy coping skills. Various techniques have been used to address patients' needs including dialogue, communication (i.e. writing, artwork, music, or narrative story), relationship building, and behavior change. The literature suggests a great deal of controversy in the effectiveness of psychotherapy interventions, where some studies indicated increase benefits in offering the therapy and others believed that treatment was ineffective⁵¹. To date, there lacks to be a study that compares the effectiveness of different psychotherapies with long follow-up times⁵². Future studies in a more comprehensive database could potentially result in additional evidence.

D. Impact of Error on the Organization and the Healthcare Team

As mentioned previously, many of the signs and symptoms second victims experience are similar to those that lead to post-traumatic stress disorder, including feelings of helplessness, insomnia, doubt, fear, or anxiety⁵³. Often, these symptoms are not only experienced by one individual, but rather several members in a team of healthcare providers who either have taken care of the same affected patient or were impacted by the event due to their role on the unit or physical proximity of the event. For both individuals and teams, these symptoms can negatively impact the provider-patient relationship and can lead to absenteeism, low morale, frustration, lack of concentration, or presenteeism⁵⁴. Theoretically, if not managed effectively, organizations can face low employee satisfaction scores, malpractice suits, and threats to federal funding.

Although growing attention is being paid to improving systems to create safer health care and to the appropriate handling of patients and families harmed during the provision of medical care, there has been little attention to helping health care workers cope with adverse events. Anecdotal evidence suggests that many healthcare organizations do not adequately recognize the needs of second victims, and often do not meet those needs after a stressful event has occurred⁵⁵. In fact, some organizations are unaware of how to develop and implement a formal second victim support structure⁵⁶. As such, prioritized organizational response following an adverse event should encompass three priorities: (1) patient and family, (2) the staff—especially those involved in the event, and (3) the organization⁵⁵.

Even though the term second victim was introduced 14 years ago, there remains a gap in the literature on effective strategies and support programs to assist second victims in coping with their emotions. As noted earlier, a few studies further defined second victims and described the feelings they experienced, identified the prevalence of second victims, and described how second victims cope with their emotions. Most, if not all, of the published literature focuses on a hospital or health system setting; this limits the generalizability of the results to other settings.

It has been reported that second victims received inadequate support from their organizations^{57, 58, 59, 60}. Although a few studies have introduced solutions or interventions to support second victims, there is a gap in the literature on effective

strategies to assist these healthcare providers. For instance, one study mentioned that although there are various sources of support for healthcare providers after experiencing a medical error, such as risk management support, critical incident stress management (CISM), litigation assistance programs, physician support groups, and employee assistance programs, there continue to be challenges in addressing these second victims' needs. One recommendation of this report was to fund counselors experienced in supporting second victims. Encouraging open communication and allowing clinicians to talk about the event was also an effective coping strategy documented in the literature⁶¹,⁶². Rebuilding second victims' confidence by holding debriefings, hiring more staff to reduce the stress level on the unit, and offering continued employee assistance counseling was documented by one study⁶³. Another recommendation was to emphasize the importance of peer support and utilize existing resources to develop organizational peer support programs⁶⁴, ⁶⁵, ⁷⁸, ⁸¹. Some studies emphasized the importance of constructive feedback and avoiding punitive action when managing the error and its impact on the patient, system, and provider⁶⁶, ⁶⁷; whereas other studies introduced tools for organizations to utilize when healthcare providers were seeking emotional support^{81,56}.

E. Programs: Proactive organizational support for second victims

There has been a great deal of attention paid to patient safety and patient safety culture over the past decade. Many system changes have been made related to disclosure, reporting, and patient safety¹. However, little attention has been given to make structural changes in hospital settings to support healthcare providers after an unanticipated event

takes place. Thus, it is critical to address the needs of healthcare providers in hospital settings so that they are able to provide quality care to their patients.

After an unanticipated adverse event, healthcare workers benefit from receiving support in the workplace from peers in a “safe” environment and non-threatening manner. In order for providers to feel supported by their hospitals and peers, one options is availability of an organizational support program. The aim of these organizational support programs is to offer second victims an opportunity to cope in positive ways with their emotional distress. Furthermore, the presence of such a program reinforces leadership’s commitment to caring for the healthcare providers, so that they in turn can care for the patient. These programs can include professional counselors, mental health providers, and even clinicians—peers who are trained to provide support. These trained peers can offer social, emotional, and instrumental support for health-related behavior change to reach emotional recovery⁶⁸.

Informal support, such as that provided by peers, however, is not always positive social support. In fact, there are instances in which these informal networks may be detrimental to the individual in need of support. For instance, a colleague without training in effective support or coaching may provide unintentionally negative feedback to the second victim, which may have further detrimental effects on the ability to cope with the event⁶⁹. A subconscious awareness of such risks could impede a healthcare worker’s willingness to disclose an adverse event, engage effectively with programs, or be able to

respond to future events⁷⁰. There are several reasons that these interactions may be harmful rather than supportive. These include inadequate awareness by peers of appropriate things to say, lack of formal training in providing support, lack of organizational resources, and the lack of organizational policy. In other cases, supervisor involvement in providing support can pose a risk to the employee, such as an impact on annual evaluations. In addition, informal support may not be equally accessible to all. Although some healthcare organizations may not have implemented formal second victim support programs, they may have employee assistance programs. However, these programs may not have the capability to support second victims in a timely way following an unanticipated adverse event. For these reasons, trained peers who provide support in a formal organizational support program can be an effective and sustainable strategy for healthcare institutions to consider.

F. Second Victims and Employee Assistance Programs (EAPs)⁷¹

Generally, hospitals in the United States have experience in providing immediate, confidential, and proactive services to employees in need of support. These services can include employee assistance programs (EAPs) to staff who are experiencing personal issues that negatively impact their job performance. Employee assistance programs (EAPs) were introduced in the 1940s to offer employee services on the affect of alcohol use and abuse on job performance. Three decades later, EAPs broadened their scope of services to include personal issues that negatively impact employees' job performance as well as issues that could lead to violence, physical and mental health problems in the

workplace. EAPs provide value to the organization because they: (1) emphasize the value of the workforce, (2) address the organizations' costs by reducing absenteeism and lowering employee turnover, and (3) mitigate business risks by reducing the likelihood of workplace violence, for instance. Current EAPs are either offered by external (independent, hospital-based/stand-alone organization or health plan/managed care) or internal services (vendor-contracted services or staff provided services). Depending on the organization, EAPs can be housed under Human Resources, Employee Benefits, Occupational Health, or the Medical Department.

Regardless of how EAPs services are structured, they generally offer similar services that include: identifying, referring, and providing care to employees, providing online education and self-help materials, referring employees to Human Resources, and training employees and providing leadership. Additional services offered by EAPs include critical incident stress management, workplace violence consultation, work/life support, financial/legal counseling, plan for work return, and onsite wellness programs.

One of the challenges that EAPs face is the lack of standardization in the type and training of professionals selected to provide support and lead EAPs. Additionally, the employee assistance field has not sufficiently published evidence to address the validity or impact of EAP models. As a result, many of these programs are assessed within the organization through process or outcome measures that are reported to employers.

Even though the scope of these services is broad, EAP services can be limited in addressing second victims' need since EAP counselors do not have specific experience in supporting second victims' emotional suffering, and EAP services are limited in availability during night and weekend shifts⁷². It is important for healthcare organizations to consider how to protect and invest in their human capital by offering services that will enhance healthcare providers' job performance and address issues that negatively impact the workplace.

II. CONCEPTUAL FRAMEWORK: Malcolm Baldrige Criteria for Performance Excellence Framework—A Strategy for Change

No existing conceptual framework describes patient safety officers' or leadership perceptions on the impact of adverse events on second victims, the importance of second victim support structures, and the impact of adverse events on clinical and provider outcomes. Therefore, the Malcolm Baldrige Health Care Criteria for Performance Excellence framework was used to describe the relationship between patient safety officer perceptions (leadership domain) and second victims (workforce focus domain) and how the impact on organizational success.

The Malcolm Baldrige Health Care Criteria for Performance Excellence framework provides a platform to focus organizational leadership efforts on a specific strategic priority while aiming to achieve and sustain the highest levels of excellence in quality, cost, financial stability, and employee satisfaction⁷³. This framework organizes the

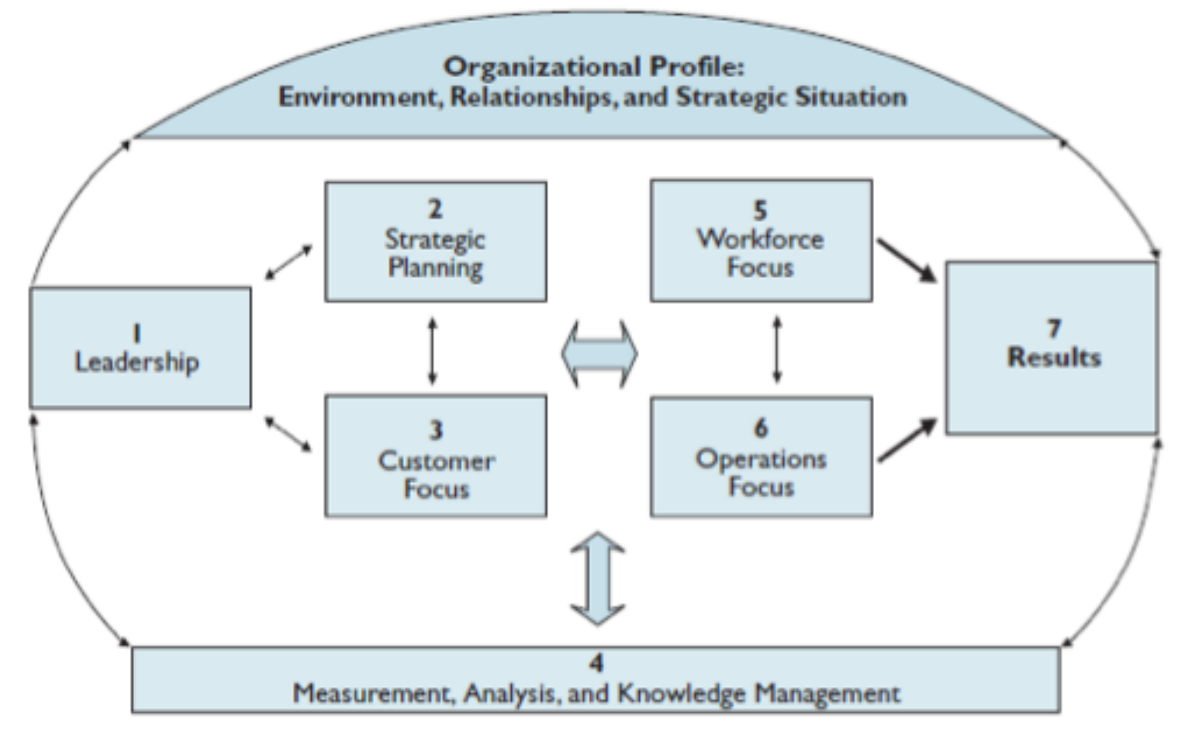
following concepts into seven main sections: leadership, strategy, patient relations, worker relations, information management, operations, and results. In highlighting these seven sections, the Baldrige framework advocates for organizational excellence through assessment, feedback and evaluation, and sharing of best practices. In this study, the strategic priority will be focused on support programs and services for second victims, which as an effort that will enhance patient safety within the organization and sustain this priority over time.

Significance of Baldrige Framework to Research Study:

The Baldrige framework provides a conceptual foundation for the current the research study in that the study aims will address the “Leadership” and “Workforce Focus” domains. Focusing on these domains will impact the remaining domains in the framework. For instance, obtaining leadership support for implementing a support system within a hospital will be incorporated into the “Strategic Plan,” which will ultimately impact the “customer focus,” “process management,” “measurement and analysis,” and “results” domains.

Organizational Profile:

The organizational profile provides a snapshot of the organization’s environment, relationships with customers and competitors, as well as challenges the organization is facing⁷⁴.



1. Leadership

According to the Baldrige framework, leadership is defined by how senior leaders address values, directions, and performance expectations while focusing on patients and stakeholders, empowerment, innovation, governance, learning, and the community⁷⁴.

Within this framework, leaders must effectively communicate organizational values and performance expectations. This is done by:

1. Effectively describing the organization's mission, vision, and values statements to employees and the public as well as clearly communicating these in proposing organizational change.
2. Utilizing measures and benchmarks and reporting them to employees promptly

and publicly.

3. Using the measurement system to reinforce a two-way communication with senior executives and employees. This will create a culture in which employees are empowered to communicate with leadership and share their concerns.
4. Recruiting and retaining effective team members by monitoring satisfaction, turnover, and safety. Senior executives generally conduct formal and informal forums and walking rounds to reinforce this. For instance, the “service value chain” concept—satisfied workers produce satisfied customers and improved clinical performance—has been embraced by many organizations.
5. Utilizing financial incentives to reward goal achievement, recognizing employees, and celebrating their accomplishments.

Additionally, senior executives who embrace the Baldrige leadership criterion create an environment that cultivates legal and ethical behaviors. Leaders implement compliance processes and create effective relationships with employees to prevent legal violations. More importantly, organizational values are incorporated into these compliance processes to reinforce the importance of ethical behaviors.

In this study, patient safety officers will represent leaders/senior executives in Baldrige’s leadership domain. In order to develop and establish a comprehensive and systematic second victim support structure, it is critical to consider leadership’s perspective in implementing this organizational structure. Therefore, conducting this study will help inform organizations on the importance of supporting healthcare providers.

2. Strategic Planning

Strategic Planning reflects how an organization creates strategic objectives and action plans and how these are implemented, measured, and monitored. It is critical for organizations to embed goals, empowerment, analysis, and revision into the culture.

Most importantly, the strategic process is about how these components might change and become altered based on organizational priorities. The strategic planning process begins with a review of the mission, vision, and values to update these and to reinforce them as core organizational criteria to guide strategy. Then, organizational strengths, threats, and opportunities presented by new technologies, the dynamic market, caregivers, competitors, and regulators are evaluated; appropriate strategic responses are taken based on these assessments. Additionally, goals and benchmarks are established, and specific task forces are created to monitor performance and set expectations. Finally, employees are empowered to help build these plans and set targets to achieve organizational goals.

3. Customer Focus

This criterion allows organizations to develop requirements and expectations based on the preference of patients, key stakeholders, and surrounding markets. As a result of being customer focused, organizations will be able to concentrate on satisfaction, loyalty, retention, and service expansion. Some of the customers in these healthcare organizations include patients, families, providers, students, insurers, the community, and government agencies. In order to be a customer-oriented organization, it is essential to:

1. Establish a comprehensive system of “listening and learning tools” through the use of focus groups, community need surveys, patient and employee satisfaction surveys, and market research.
2. Determine opportunities for enhancing and improving service and clinical quality.
3. Assess performance to determine what contributes to patient loyalty and provider loyalty.
4. Address customer complaints immediately with a standardized process of response, monitoring, following up, and learning from system defects.
5. Celebrate customer achievements by rewarding them with written acknowledgements, gifts, awards, etc.
6. Build customer relationships and learn about maintaining customer loyalty from leading non-healthcare institutions.

4. Workforce Focus

This criterion emphasizes how organizations’ staff learning and motivation encourage them to utilize their full potential and maintain an effective work environment that reflects performance excellence, personal growth, and organizational success. Since human resource practices are a significant aspect of the Baldrige framework, organizations fulfilling this criterion attract and retain competent and satisfied employees and aim to continuously improve their skills. As a result, organizations develop their work environment by aligning providers’ expertise and experience with the

organizations' overall strategy. Furthermore, these organizations:

1. Select and retain good employees
2. Develop human resources systems that embrace high performance
3. Articulate organizational learning and adaptation to change
4. Continuously enhance employees' well-being, satisfaction, benefits, and workplace safety.
5. Advocate for the recruitment and retention of a diverse workforce

Additionally, this research study will focus on the workforce and how the second victim support structures will assist providers in effectively coping with their emotions. Asking patient safety officers on their perceptions of how employee assistance programs can support providers is also a critical component of Baldrige's workforce focus domain. Overall, establishing a support structure for second victims will further enhance provider performance in offering quality care.

5. Measurement, Analysis, and Knowledge Management

This criterion focuses on how organizations select, collect, analyze, improve, and monitor data and information. The "measurement and analysis" component examines input, verification, standardization, archiving, and analysis of large volumes of data from multiple sources; whereas "knowledge management" focuses on how organizations ensure availability of high quality and timely data.

In order to focus on "measurement and analysis," organizations develop, maintain, and

use data to improve performance. This includes building medical-records coding and data, billing, materials management, cost accounting, satisfaction surveys, and human resources effectively and reliably. Additionally, benchmarks are established and are compared to best practice. Internal consultants are provided to employees to assist them in establishing relationships between measures, identifying trends, and preparing reports. Furthermore, involving management and employees in improving data processing and selection of measures is key.

“Knowledge management” focuses on how organizations secure the availability of timely and high quality data. Therefore, organizations should build the process management and business capabilities before implementing clinical information systems or electronic medical records. They should also leverage providers’ use of technology when providing care. Most importantly, these organizations emphasize the importance of error reporting while taking into consideration data confidentiality and HIPAA (Health Insurance Portability and Accountability Act) compliance.

6. Process Management

Process management concentrates on the organizations’ clinical, business, and other support processes for establishing organizational value. According to the Baldrige framework, organizations are a large set of work processes, where each process is described and monitored by performance measures that encompass availability, cost, quality, customer satisfaction, and employee satisfaction. The elements in the strategic

planning criterion, such as benchmarks, goals, and stakeholder opinions, are utilized to identify opportunities for improvement. In general, process management programs:

1. Alter and change the organizational culture from professional judgment to performance measurement
2. Emphasize accountability around a group of patients with similar needs and services rather than a silo approach in service line structures
3. Decide on performance measures and progress based on predetermined benchmarks and goals.
4. Change and revise processes as well as search for alternatives based on analysis of quantitative and qualitative data
5. Listen to and obtain qualitative information from key stakeholders, including customers and employees, to supplement quantitative measures and data already being collected.

7. Results

This criterion refers to performance and improvement in relation to competitors who are providing similar health care services. There are currently few studies that can provide this information for the second victim problem.

III. EXAMPLES OF SECOND VICTIM OR SUPPORT PROGRAMS

A. Support Programs for Hospital Workforce

A few support programs have been cited in the literature and focus on offering timely interventions to support second victims.

1. Medically Induced Trauma Support Services (MITSS)

MITSS is a non-profit organization that aims to promote awareness to patients, family members, and clinicians on the emotional trauma that occurs after an unexpected medical outcome⁷⁵. Linda Kenney, a patient who was injured by an anesthesia-related adverse event, founded the institution in 2002. After Linda's recovery, she collaborated with the physician involved in her incident to establish MITSS as a resource center for both patients and healthcare providers who are emotionally traumatized and are having difficulty coping with events. A MITSS invitation forum that took place in March 2009 advocated for the need to develop organizational peer support programs, which will ultimately result in better communication, increased staff satisfaction, and an increased willingness to report errors⁷⁵. In addition to hosting annual events and workshops, MITSS developed a toolkit of resources to assist organizations in establishing second victim programs⁷⁶. This toolkit includes published articles, tools, and other helpful sources.

2. University of Missouri: forYOU Program

The University of Missouri Health Care (UMHC) is a 307-bed acute care hospital located in Columbia, Missouri. The Office of Clinical Effectiveness (OCE) at UMHC realized

that during several event investigations, many healthcare providers personally suffered after experiencing an unanticipated adverse event. In an effort to quantify the prevalence of second victims among care providers within the health system, an internal patient safety culture survey was administered in 2007. Approximately, one in seven staff mentioned that they personally suffered as a result of a patient safety event, and almost 70% of these individuals did not receive organizational support⁷⁷.

After conducting interviews with second victims (including physicians, registered nurses, and other professionals) at UMHC, OCE was able to identify six stages of the recovery trajectory that second victims encounter. These include: (1) chaos and accident response, (2) intrusive reflections, (3) restoring personal integrity, (4) enduring the inquisition, (5) obtaining emotional first aid, and (6) moving on—dropping out, surviving, or thriving⁷⁷.

In an effort to support these second victims from an organizational perspective, UMHC then developed the forYOU Program under the patient safety department to address second victims' needs⁷⁸. To plan the scope of the program, the forYOU program established the Scott Three-Tiered Interventional Model of Second Victim Support⁷⁸. This model focuses on the nature of support that escalates from support at the unit level from colleagues and supervisors (Tier 1), to support from trained peer supporters and patient safety officers (Tier 2), and ending at referrals to existing resources—EAP, chaplain, social work, or clinical psychologists (Tier 3)⁷⁸. A multidisciplinary group of

50 healthcare professionals across the academic health system, including the Schools of Medicine and Nursing, have undergone training to provide second victim support within their divisions. The forYOU team meets monthly for ongoing program development, case reflection and training.

3. Kaiser Permanente Program

Kaiser Permanente, the largest US integrated health system located in California, realized that one of the barriers to reaching out for support is the stigma associated with accessing formal support through EAP⁷⁹. As a result, Kaiser established a clinician support program in 2004, which is housed under the EAP and aims to support the organization's providers and staff members⁷⁵. Senior leadership's commitment to developing and sustaining a healthy workforce reinforces the existence of the program. In addition, Kaiser's EAP provides specific assistance programs for physicians and nurses with peer support by offering guidance, debriefing, counseling, referral, and recommendations for additional services, such as the organization's chaplain and social services; the hope is that this will ultimately assist in reducing errors, increasing productivity, and embracing a culture of trust⁷⁵. The program also aligns with California's state mandate to address physicians' well-being. After an adverse event happens, Kaiser's Situation Management Team coordinates the response process and contacts EAP. As the Situation Management Team coordinates a meeting time with the staff, EAP gathers additional information before interacting with staff, so that they are able to effectively provide support based

within the context of the event. Then, both the EAP and the Situation Management Team assess the impact on the staff and offer appropriate interventions and follow-up.

4. Boston Children's Hospital: The Office of Clinician Support (OCS)

The Office of Clinician Support (OCS) at the 395-licensed bed Boston Children's Hospital in Massachusetts is a complimentary service that can be accessed by clinicians who have trouble coping with work-related or personal events⁷⁵. In 2004, the program was established based on pre-existing program and was led by a psychiatrist-in-chief and chairman of psychiatry at Children's. Prior to 2004, the program started when a consulting psychiatrist to the medical service was offering support to groups and individuals outside his role. Then, the hospital decided to create an Office of Physician Support, which later evolved into OCS.

The OCS believes that clinician stress and burnout compromise patient care and patient safety. As a result, they offer resilience training to decrease stress. After an adverse event had been reported, the OCS works collaboratively with the EAP, the quality and patient safety departments, legal, other hospital departments, and different peer support services. The OCS recognizes the "re-traumatizing" effect the debriefing and investigation processes have on staff and believe that reliving the event may lead to post-traumatic stress response⁷⁵. Therefore, the OCS emphasizes the importance of peer support and the power of story telling and exchanging experiences that will ultimately lead to increased resilience.

5. Brigham and Women's Hospital (BWH): The Center for Professionalism and Peer Support (CPPS)

BWH is a 793-bed teaching hospital of Harvard Medical School in Boston. In 2008, the Center for Professionalism and Peer Support at BWH was established to develop and maintain a culture of trust and respect among healthcare providers, patients, and families⁸⁰. The CPPS realized that the existence of unprofessional or disruptive behavior in the workplace negatively impacted teamwork, communication, and patient safety. As a result, the Center created several programs that establish behavioral expectations and manage unprofessionalism, including: the professionalism initiative, disclosure and apology process, peer support, defendant support, and wellness programs.

The leadership team at BWH partnered with an employment law educational company to develop an educational program that raised awareness and educated physicians (and later included other providers, such as nurse practitioners and physician assistants) on the importance of professional behavior; this evolved into a required educational program.

The leadership team also established a Code of Conduct that emphasized professionalism and commitment to colleagues, patients, and families. Furthermore, CPPS created a process for managing professionalism concerns that include: (1) intake and acknowledgement of professionalism concerns, (2) assessment process, and (3) remediation and monitoring⁸⁰. To address these concerns, different interventions, such as

feedback, coaching, formal evaluation, and 360-evaluation, were used based on the type, severity, and frequency of the behavior that was reported.

6. Johns Hopkins Hospital: RISE (Resilience In Stressful Events) Program

The RISE team at Johns Hopkins is a second victim peer support program created to assist second victims who are emotionally affected by disturbing patient related events⁸¹. The RISE program has been in existence for 2-3 years and is led by a program director. This peer support group is composed of Hopkins employees who are trained to provide support, including clinicians, professional counselors and mental health professionals, social workers, clergy, administrators, risk managers, and employee assistance program (EAP) staff. RISE is mostly based on volunteer effort from existing personnel and is partially funded by the facility through the Patient Safety Department.

Support is designed to be confidential and anonymous and is prepared to respond to groups as well as individuals. The RISE team can be accessed 24 hours a day, 7 days a week if the employee requests it, if a unit manager or risk manager refer the employee, or if a peer recommends it to the second victim. Some of the barriers to accessing support at the Johns Hopkins Hospital is taking time away from work to access the RISE team, not being aware that this program exists, and having concerns about being negatively judged by other or that seeking support will affect malpractice premium costs.

B. Support Programs for Psychological Trauma

1. Psychological First Aid (PFA) & RAPID-PFA

Another intervention that aims to immediately mitigate emotional distress during or after a crisis is Psychological First Aid (PFA)—“the provision of a supportive and compassionate presence designed to enhance natural resilience and coping, while facilitating access to continued care, if necessary”^{63, 82}. PFA was co-developed in 2006 by the National Center for Post Traumatic Stress Disorder, a division of the United States Department of Veterans Affairs, and the National Child Traumatic Stress Network as a technique used to assist individuals in the immediate aftermath of a disaster and to reduce the occurrence of PTSD⁸³.

PFA is based on the concept that disaster survivors will undergo various early reactions to the disaster, including physical, psychological, behavioral, and spiritual reactions. Since these reactions will impact an individual’s ability to recover, effectively coping with these reactions can be supported by those trained in PFA⁸³. The goals of PFA are similar to that of physical first aid in basic life support: stabilize psychological and behavioral functioning, mitigate psychological distress and dysfunction, facilitate recovery and return to adaptive psychological and behavioral functioning, and promote access to additional resources^{84, 85}. Evidence suggests that utilizing PFA as early as possible is essential following a traumatic event⁸⁶. However, specific time windows have not been determined.

In the literature, PFA has been recommended to serve as one element of a larger and more comprehensive mental health care intervention for traumatized individuals. It was initially intended to help children, adolescents, adults, and families promptly after the occurrence of a disaster or terrorism events. Since the purpose of PFA is to provide primary prevention of the acute and chronic stress reactions listed earlier, PFA training has been offered in various settings, including the American Red Cross, the World Health Organization, and the National Center for PTSD⁸⁷. Professionals who offer PFA in these settings include and are not limited to mental health and other disaster response workers, incident command systems, healthcare providers, school crisis response teams, faith-based organizations, and disaster relief organizations. Furthermore, specialized PFA curricula have been customized for individuals working in nursing homes, with the homeless, faith community leaders, and public health workers.

PFA is also applicable to health care settings. Given that healthcare providers have constant and direct contact with patients, they are more likely to encounter stressful traumatic events. Many organizations do not have the capacity or capability to address each of these individuals' needs, it is essential to build capacity and resilience within the hospital by offering PFA training to frontline health care providers⁶⁴. In doing so, clinicians will be able to assist their colleagues to mitigate emotional distress following the event. Using PFA as an intervention will allow healthcare providers to recognize and identify second victims, offer timely support, and escalate the care if needed. In order to

be effective, these elements should be supported by a foundation of organizational leadership support, infrastructure, training, and available resources.

To increase utilization of PFA among individuals with no mental health training, including healthcare providers, the Johns Hopkins Center for Public Health Preparedness developed the related RAPID-PFA model (Reflective listening, Assessment, Prioritization, Intervention, & Disposition). RAPID-PFA is based on a one-day training session that emphasizes the importance of communication, basic assessment and triage, and stress management⁸⁸.

2. Critical Incident Stress Management Debriefing (CISM)

Critical Incident Stress Management (CISM) is a widely used model that focuses on the importance of ‘psychological debriefing,’ which includes various short term interventions that reduce long term distress and prevent the development of PTSD^{89, 90}. The large literature on CISM is based on a multi-disciplinary approach and is inclusive of the following fields and populations: nursing, fire services, police, social work, emergency preparedness, and allied health professions. In utilizing the CISM model, timing is critical and should be offered in a group ideally within 24-48 hours of the event, since overwhelming stress symptoms generally occur within this timeframe⁹¹.

Numerous studies that have utilized CISM reported that it was a valuable experience that improved outcomes¹⁰¹. CISM has also been reported to work effectively with emergency service personnel, civilians, and high-risk occupational groups. Some studies indicated the importance of a skilled facilitator who is well-trained, supportive and is knowledgeable on the context and type of environments the victims work in¹⁰¹. Other researchers have found additional benefits in utilizing the CISM model, such as emotional ventilation, support, stress management, positive coping, reassurance, and referral for additional services^{92, 101}.

On the other hand, some researchers have found that in certain cases, critical incident stress debriefing has been harmful to participants. The conclusion has been drawn that debriefing facilitators should not force individuals to reveal the details of the traumatic event as this may cause additional harm⁹³. Also, the lack of clarity of terminology and application of CISM has limited the successful measurement of psychological debriefing in the literature. Some of these limitations include small sample sizes, absence of control groups, lack of uniformity of processes, low response rates, and the timing variances in delivering the intervention^{94, 95}. As a result, further research is required to evaluate the effectiveness of CISM in various contexts, settings, and populations.

The timing of CISM interventions has also been a point of debate in the literature⁹⁶. For instance, some define early interventions as 12 hours or less^{38, 97}; whereas others refer to early interventions taking place within 3 months of the traumatic event. Other authors

consider early support that happens immediately following an incident, before the individual leaves the work environment, and before their first sleep on the same day as the event^{98, 99}. Given the limited literature on the timing of CISM interventions in healthcare, one study assessed CISM interventions on stress reaction and employees perception of the intervention for those received support 24 hours or less after the incident occurred compared to those who received support more than 24 hours after the event⁹⁶. Results indicated that overall, those who received support within the first 24 hours had lower mean scores for avoidance, intrusion, and hyperarousal⁹⁶.

Even though many organizations offer different forms of psychological interventions to their employees, the cost of establishing a comprehensive CISM program can be substantial—as this requires human and organizational resources. As a result, employee assistance programs in healthcare have been responsible for assessing traumatized employees¹⁰⁰. According to the literature, another alternative to offering a CISM program includes ‘defusing’ the situation and offering ‘peer support’—both of which are cost-effective compared to a formal debriefing intervention¹⁰¹.

3. Support programs for those in the military

Recent events have led to increasing attention has been given to the mental health status of military personnel exposed to deployment-related stressors or traumatizing events, e.g. Fort Hood and similar events. As mentioned earlier, these types of events, including death and serious injury, provoke an individual or group to experience intense feelings of

horror, terror, or helplessness¹⁰. The armed forces think that offering professional mental health services to service members to restore individual functioning and unit cohesion and clarify misconceptions is mission critical.

Given that half of the service members who return with PTSD or depression-related symptoms seek mental health services, there continues to be stigma associated with confidentiality in accessing these services¹⁰². In an effort to reduce these barriers, the Secretary of Defense Robert M. Gates introduced a policy in 2008 to make changes to the government security-clearance form¹⁰². Regardless of the policy changes that were implemented, cultural knowledge, attitudes, and beliefs on seeking mental health services continue to be a challenge for many service members¹⁰³.

Additional efforts from leadership could have significant impact in creating a culture that is more likely to accept and recognize psychological health problems¹⁰². One approach is to promote resilience, “the capacity to adapt successfully in the presence of risk and adversity,¹⁰⁴” by enhancing military personnel’s strengths, such as physical fitness and stress reduction¹⁰². In fact, frontline and medical leaders in the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) Resilience Program have emphasized the importance of resilience in their approach to operational readiness for military personnel and their families¹⁰².

Based on the literature, there are at least 77 resilience programs that target various audiences and resilience content (i.e. mental, social, physical, or spiritual focuses), some of which include military-specific programs. Many of these programs focus on one or more intrinsic (i.e. individual) or extrinsic (i.e. family, unit, and community) factors, where each of these resilience factors incorporates strategies and concepts that will assist leaders in identifying the appropriate program for military personnel to access:

Table 1: Resilience Factors (modified from ‘Summary of Resilience Factors Incorporated into Each Program’¹⁰²)

Resilience Factors	
Individual	Positive coping, positive affect, positive thinking, realism, behavioral control, physical fitness, altruism
Family	Emotional ties, communication, support, closeness, nurturing, adaptability
Unit	Positive command climate, teamwork, cohesion
Community	Belongingness, cohesion, connectedness, collective efficacy

Moreover, these factors are embedded in some of the military-specific programs, which also include various group psychological debriefings. Group debriefings, structured group discussions to reflect on a stressful event, are one of the most common and early interventions used in the military¹⁰⁵. The earliest type of group debriefing is Marshall’s World War II Historical Group Debriefing (HGB) used to clarify misconceptions and enhance teamwork¹⁰⁶. As a result, the military continued to offer unit-based debriefings, some of which include Leader-Led After-Action Debriefing (AAD), Critical Event Debriefing (CED), Time-Driven Battlemind Psychological Debriefing, and Critical

Incident Stress Management Debriefing (CISM). Earlier in this review, CISM debriefing was explored. Although debriefing has been found to be ineffective in reducing the symptoms of PTSD and preventing it from occurring, it is still widely used⁴⁷.

Barriers to implementing resilience programs in the military include lack of leadership, challenges with logistics, funding, poor fit within the military, and mental health stigma¹⁰². Recommendations for further work on resilience include the development of standardized resilience measures that can be applied to populations in various settings as they relate to the most effective resilience factors and strategies conveyed in the literature¹⁰². Moreover, policy recommendations include standardizing the definition of resilience, integrating resilience into existing military programs, and conducting systematic program evaluation methods.

G. Resource Allocation & Policy Implications

1. Public Health and Hospital Practice

This study has future implications for practice on both the system and individual levels since it focuses on strengthening health system delivery. The system level approach includes organizational leadership commitment to develop, implement, and encourage the utilization of second victim support programs among the healthcare workforce. This was also indicated earlier in the overview of the Baldrige framework. Not only will this

promote a culture of safety within the hospital, but it will also reinforce the importance of leadership support for those who are working at the individual level to raise awareness of the second victim problem and support those in need.

At the individual level, it is essential to adopt the component PFA Competency Set 1.0, a proposed national standard of behavioral skills that assist individuals in responding to various types of traumatic events, of the Public Health Preparedness and Response Core Competency Model^{87, 107}. This competency set was developed as a result of a specific mandate in the Pandemic and All-Hazards Preparedness Act of 2006 to establish a competency-based program to train public health professionals in public health preparedness¹⁰⁸. Although some of these PFA competencies have been previously described in the literature, this recent competency set is consensus-based, empirically supported, and includes the knowledge, skills, and attitudes core competencies as they relate to each of the six PFA domains⁸². These domains are: (1) initial contact, rapport building and stabilization, (2) brief assessment and triage, (3) intervention, (4) triage, (5) referral liaison, and advocacy, and (6) self-awareness and self-care. Furthermore, these competencies have been developed under the guidance of the Centers for Disease Control and Prevention and the Association of Schools of Public Health⁸⁷.

The establishment of this competency set resulted in the creation of a 5-category logic model that can be utilized as a framework for future work¹⁰⁹:

1. Input: Review and incorporate feedback from key stakeholders,

2. Activities: Evaluate the competency set with end users,
3. Outputs: Develop tools and resources, such as tools and manuals, to support PFA trainees,
4. Outcomes: Collect data on knowledge of PFA trainees on competencies taught, and
5. Impact: Promote translation and spread of competencies and training in public health emergencies.

2. The Joint Commission Sentinel Event Policy

The Joint Commission first established its Sentinel Event Policy in 1995, which aimed to outline how organizations should respond to sentinel events¹¹⁰. Sentinel events are defined as “an unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof.”¹¹¹ Additionally, accredited organizations that report a sentinel event were required to conduct a comprehensive and timely root-cause-analysis, create an action plan, and monitor process changes. A criticism of current practice is that it tends to be insensitive to the needs of the second victim⁶⁹.

Due in part to these concerns the Joint Commission is in the process of revising their Sentinel Event Policy to include ideal characteristics for a hospital’s approach to handling patient safety sentinel events. These include the role of organizational leadership to lead process improvements, support disclosure and the need for patient and family

involvement, embrace a trusting patient safety environment, and identify the needs of second victims by offering organized support structures for employees who were involved³⁶. The new policy will also expand to include certain harm events to staff, visitors, or vendors that occur when they are in the healthcare organization³⁷. This conveys the Joint Commission's commitment to embrace a culture of safety and enforce security and safety within high reliability healthcare settings.

3. Institute of Medicine (IOM) "To Err Is Human" Report

As mentioned earlier, the IOM report emphasized the significant number of reported deaths due to the occurrence of medical errors in the American healthcare system. Some authors have indicated that the number of deaths was an exaggeration^{112, 113, 114}; whereas others believed that this number was an underestimate^{115, 116}. Regardless, each of these deaths has a significant impact on the patient and then the second victim.

In an effort to reduce the number of medical errors and patient deaths, the IOM report identified five main principles for designing safer systems in healthcare organizations. These principles were borrowed from other high-risk industries and can also be applied to developing second victim support programs. They include: (1) providing leadership, (2) respecting human limits in the design process, (3) promoting effective team functioning, (4) anticipating the unexpected, and (5) creating a learning environment⁷.

4. Legal Implications: "Provider-Patient" Privilege

The development of second victim support programs has outrun legislation where communication between second victims and a second victim support program may or may not be protected in court¹¹⁷. This can lead to uncertain costs and benefits for both the second victim and the organization that offered the support. These uncertainties have negative implications for organizational second victim support programs in that staff may feel stigmatized in accessing support following an unanticipated adverse event. Since legislation that protects healthcare providers in seeking psychological support as second victims remains to be unclear, it is essential to propose laws that protect communications where psychological first aid, for instance, is provided through second victim programs. Including such protections in federal legislation, such as the Patient Safety and Quality Improvement Act of 2005, would provide additional support for both the second victims to access the support and for the organizations to continue to offer support^{118, 117}. In an effort to establish an environment where second victims feel safe expressing their feelings about patient harm, it is essential to revisit the concept of “provider-patient” privilege.

Summary

Healthcare involves preventable errors and risks that should be analyzed and reduced to save patient lives. Therefore, understanding the scope of the second victim problem and the characteristics of existing interventions will contribute to optimizing the healthcare delivery system from a public health perspective. Although some hospitals have developed and implemented second victim programs in their organizations, further

research is required to advance best practices in providing timely support to second victims. In conclusion, this study will use the Malcolm Baldrige Health Care Criteria for Performance Excellence framework as a platform to focus organizational leadership efforts on enhancing the second victim workforce.

MANUSCRIPT #1:

“Does One Size Fit All?”

Assessing the Need for Organizational Second Victim Support Programs”

ABSTRACT

Background: Second victims are healthcare providers who are emotionally traumatized after experiencing an unanticipated adverse event. To support second victims, organizations can provide a dedicated support program for their employees. The aim of this study was to assess the extent of the second victim problem in acute care hospitals in the State of Maryland, the availability of emotional support services, and the need for organizational second victim support programs.

Methods: In-depth, semi-structured interviews were conducted with 43 patient safety representatives from 38 acute hospitals in Maryland. Descriptive statistics were generated for both hospital and participant characteristics. Data were analyzed in the QSR *NVivo10* software using a mixed-methods approach to generate codes and extract themes from the interviews.

Results: The response rate was 83%. All participants believed that they and their executives were aware that the second victim problem exists. Although participants varied in their perceptions of whether a second victim program would be helpful, all of the participants agreed that hospitals should offer organizational support programs for their own staff that become second victims. Although some organizations are attempting to promote a ‘just culture’ in responding to events, there continues to be stigma attached with: (1) speaking up during an RCA and (2) accessing support if it was offered to employees.

Conclusion: The second victim problem is recognized in all hospitals in Maryland. However, even when support is available, healthcare providers face stigma and other barriers in accessing them. Future efforts should assess the need for second victim programs from the perspectives of second victims themselves to identify barriers and improve access to needed support.

INTRODUCTION

She was devastated. Donna, a tenured ICU nurse, realized she had just made a medication error that harmed her 8-month-old patient. Donna doubted herself—“Am I competent to be a nurse?” She was angry—“What was I thinking?!” “What if the patient died?!” As she was filling out an incident report, Donna felt sad, hopeless, and anxious—all at the same time. As a caregiver who unintentionally harmed a patient, and a second victim herself, Donna was going through many feelings and anxiety about what would happen to her patient. Importantly, she did not know what this meant for her nursing career—was she going to be disciplined or re-educated? Even worse—was she going to be let go and perhaps lose her nursing license?

In fact, Donna was not the only one experiencing distress. The nursing student who was shadowing Donna was in shock. The pharmacist who regularly visited the patient was distressed about the error. And the physician who was taking care of the patient felt guilty.

This situation, which is not uncommon in healthcare, raises a larger concern—Do we, as patient safety leaders, provide support to staff that experience stressful patient related events? To what extent do we recognize the existence of the second victim problem in our own institutions? Does our organization offer any type of support? And while many of us may respond with—“Yes. We have an employee assistance program,” the next

question is—“Is this enough?” If it is not, and caregivers are coming to work everyday carrying guilt, doubt, and fear as they take care of patients, this is an important concern.

One of the ways in which organizations can help second victims cope effectively with their emotions is to develop and offer an in-house second victim support program¹³⁰.

Currently, however, there are only a few organizational second victim support programs documented in the literature. Existing programs, such as the Johns Hopkins’ RISE program, and the University of Missouri’s forYOU program, are examples of organizational support structures that help second victims cope with their emotions^{127, 119}. Some hospitals have borrowed concepts and programs from non-healthcare industries to support their staff after they have experienced unanticipated stressful patient related events; these include Critical Incident Stress Management and Psychological First Aid. However, relatively little has been published on the needs among healthcare organizations for programs to support second victims.

This study was conducted to assess the extent of the second victim problem, the availability of emotional support services, and the need for organizational second victim support programs among acute care healthcare institutions in the State of Maryland.

METHODS:

Study Design & Setting

This was a mixed-method research study to determine the perceived need for second victim support services and understand current support programs or mechanisms available for second victims in Maryland hospitals. In-depth interviews were conducted with patient safety representatives from a population of 46 acute care hospitals in the state of Maryland. From the 46 hospitals that were contacted, 43 individuals agreed to participate. Since some hospitals had more than one representative participate in the study, a total of 38 hospitals are represented (83% response rate). Interviews were guided by a pre-developed questionnaire and were conducted between December 2013 and February 2014. The Johns Hopkins University Bloomberg School of Public Health Institutional Review Board approved this research and determined it to be not human subjects research (November 18, 2013: IRB 00005464).

Two data collection methodologies were used: gathering information on hospital characteristics and conducting the semi-structured in-depth interviews. The hospitals selected to participate in the study were chosen based on their ‘acute, general, and special hospital’ status in the Licensee Directory regulated by the Department of Health and Mental Hygiene: Office of Health Care Quality (OHCQ)¹²⁰. The OHCQ licenses and certifies Maryland’s healthcare facilities and monitors the quality of care in 14,000 healthcare community and residential programs in Maryland.

The Interview Guide & Questionnaire

A semi-structured interview guide was developed to provide participants with details on the purpose of the study, the questionnaire, and instructions to schedule the phone interview. The interview guide included the following: endorsement letters from the Johns Hopkins University and the Maryland Patient Safety Center, consent forms, Institutional Review Board approval and the questionnaire. The questionnaire used existing and new questions developed in an iterative process by the primary researcher. The questionnaire was pilot-tested with one patient safety nurse, which led to further refinement of the questions as well as additional probes. Feedback was also obtained on length and wording of the questions from experts in patient safety, health services research, pastoral care, and clinical services. The exact number of questions asked of participants varied based on the information they offered.

The questionnaire captured demographic characteristics (10 items), participant perceptions of the extent of the second victim problem and the impact of adverse events on second victims (6 items), participants' roles in providing and offering support to second victims (5 items), and the extent to which support services would be accessed by second victims (2 items). The questionnaire also asked participants to respond to a second victim scenario. Additional questions were included at the end of the survey from an existing questionnaire on whether and how healthcare institutions support health workers after adverse events¹²¹. This questionnaire was divided into three major categories and aimed to measure the following variables:

TABLE I: INTERVIEW GUIDE & PRINCIPAL MEASUREMENT VARIABLES:

Domains of In-Depth Interview

Interview Domains		Number of Questions
Part I: Demographic characteristics		10 questions
Part II: Accessing Need for Support Program		12 questions
Part III: Support Structure at Your Hospital		
Section A: Existing support structure		16 questions
Section B: Interest in developing a support structure		14 questions
Section C: Do not plan to implement a program/Do not know		2 questions
Summary of Principal Measurement Variables		
Variables	Measures/Interview Questions & Scales	Questionnaire/ Citation
Independent Variables		
Hospital Characteristics	Teaching Status Teaching Non-teaching	Original Question
	Bed Size Small (less than 200 beds) Medium (200-299) Large (300 or more beds)	Original Question
	Urban/Rural Status Urban Rural	Original Question
Participant Characteristics	Gender Female Male	Original Question
	Education MD JD RN MSN PhD CPHRM CPHQ ARM CPCU Other	“Healthcare Worker Support after an Adverse Event” survey ¹²¹

	Title & Role Officer Manager Director Executive	Original Question
	Role Responsibilities patient safety quality of care quality management risk management infection control emergency preparedness	Original Question
	Number of Years in Position less than a year 1 to 5 years 6 to 10 years 11 to 15 years more than 15 years	Original Question
	Number of Years at Primary Institution less than a year 1 to 5 years 6 to 10 years 11 to 15 years 16 to 20 years over 20 years	“Healthcare Worker Support after an Adverse Event” survey ¹²¹
Dependent Variables		
Awareness on extent of second victim problem	To what extent do you believe the second victim problem is relevant to your organization? [5-point: Not at all Relevant - Extremely Relevant]	Original Question
	In your opinion, what is your executive leadership’s awareness of the emotional impact of adverse events on caregivers? [5-point: Not at all Relevant - Extremely Relevant]	“Healthcare Worker Support after an Adverse Event” survey ¹²¹
Current support offered or lack thereof	Consider the following scenario: A nurse at your hospital contributed to a medication error that left an 8-month-old patient suffer from this error. a. What would happen at your institution following this event? [open-ended]	Original Question

	b. What do you think is the organization's responsibility in supporting this nurse? [open-ended]	Original Question	
Assessment of the need for organizational support	To what extent do you: a. believe that hospitals should offer a support program for their own staff who become "second victims"? [5-point Agreement Scale: Strongly Disagree to Strongly Agree]	Original Question	
	b. believe that an organizational support program will be helpful in addressing second victims' needs? [5-point Agreement Scale: Strongly Disagree to Strongly Agree]	Original Question	
	c. agree there is enough of a need at your organization to devote resources to a support program? [5-point Agreement Scale: Strongly Disagree to Strongly Agree]	Original Question	
Development of an organizational support program	<p>In your opinion, which of the following represent barriers to developing a program for caregiver support in your organization?</p> <ul style="list-style-type: none"> • Funding • Stigma • Trust & concerns about confidentiality • Lack of interest on the part of staff • Uncertainty about best practices • Lack of clinical leaders to serve as peer support personnel • Buy-in by executive leadership • Legal or regulatory concerns • Other 	"Healthcare Worker Support after an Adverse Event" survey ¹²¹	
Staffs' willingness to access organizational support	If organizational support were available for employees involved in stressful patient-related events, how willing to you think employees would be to use it? [5-point scale: Not at all Willing - Extremely Willing]	Original Question	
	a. Why or why not? [open-ended]	Original Question	

This interview guide was sent to the participants before scheduling the interview, so that they could familiarize themselves with the scope of the questionnaire and gather relevant information as necessary.

Data Collection: Recruitment and Participant Selection

Semi-structured, in-depth interviews was chosen as the method for data collection because they allow participants to explore their personal experiences, share their thoughts, and address the specific research aims presented in the interview questionnaire. Purposive sampling was used to recruit and select the participants in the study. Since patient safety representatives at different organizations have various titles, one of the main inclusion criteria for participants of this study was serving as a patient safety or quality organizational representatives at the department level or above with a safety leadership position. Patient safety representatives within the selected hospitals were further identified based on the following: participants' role in overseeing patient safety programs and/or event reporting as well as recommendations from the hospital's executive(s) or colleague(s). These participants had the potential to offer important information that was relevant to the research question and purpose of the study.

Potential participants were contacted by telephone or by email at the end of November 2013 and early December 2013 and invited to participate in the study and to schedule a telephone interview. Verbal consent was obtained from all participants; the interviewees were asked for their permission to audio record the interviews. The recorded interviews

were transcribed verbatim; reliability was verified by checking the recordings against the transcripts. Since the questions were administered via telephone, this group of participants was initially identifiable; however, for the purpose of reporting these results, participants and their institutions were de-identified. Interviews lasted between 14 to 65 minutes.

TABLE II: HOSPITAL AND PARTICIPANT DEMOGRAPHICS

<u>Hospital Demographics</u>	n (%)
Total	38 (100)
Bed Size	
Small (less than 200 beds)	16 (42.1)
Medium (200-299 beds)	13 (34.2)
Large (more than 300 beds)	9 (23.7)
Teaching Status	
Teaching	17 (44.7)
Non-Teaching	21 (55.3)
Urban/Rural	
Urban	33 (86.8)
Rural	5 (13.2)

<u>Participant Demographics</u>	n (%)
Total	43 (100)
Gender	43 (100)
Female	39 (90.7)
Male	4 (9.3)
Education	83 (100)
RN	35 (42.2)
Masters Degree*	17 (20.5)
MSN	8 (9.6)
CPHQ	7 (8.4)

CPHRM	4 (4.8)
JD	2 (2.4)
Doctorate	2 (2.4)
Other**	8 (9.6)
* healthcare risk management, nursing informatics, business administration, health & public policy, public health, applied behavioral science, social work	
** certified by Infection Control Board, Certified Emergency Nurse, Certified Legal Nurse Consultant, EDD, RRT, Registered Health Information Administrator, PA, bachelor of science	
Title & Role	
Officer	7 (16.3)
Manager	21 (48.8)
Director	10 (23.3)
Executive	5 (11.6)
Role Responsibilities	
patient safety	38 (90.5)
quality of care	26 (61.9)
quality management	27 (64.3)
risk management	26 (61.9)
infection control	15 (35.7)
emergency preparedness	10 (23.8)
regulatory & accreditation	7 (18.4)
case management	5 (11.9)
rehabilitation services	2 (4.76)
other*	17 (39.5)
Number of years in position	
less than a year	11 (25.6)
1 to 5 years	17 (39.5)
6 to 10 years	5 (11.6)
11 to 15 years	6 (14.0)
over 15 years	4 (9.3)
Number of years in primary institution	
less than a year	3 (7.0)
1 to 5 years	9 (20.9)
6 to 10 years	6 (14.0)

11 to 15 years	6 (14.0)
16 to 20 years	4 (9.3)
Over 20 years	15 (34.9)

* emotional & spiritual support, crisis intervention, core measures, performance improvement/quality assurance, medical review committee, patient complaints, data analysis, environmental safety, occupational health education, strategic planning, health information management, safety communication & education, patient advocacy, social work, pastoral care, privacy compliance, employee & visitor safety

Data Analysis

Each of the transcripts was importing into a computer-assisted qualitative data analysis software program: QSR *NVivo10*, and was then read carefully. *NVivo* was selected to code for themes that emerge from the data and make connections between the information. Descriptive statistics for participants and hospitals were analyzed. Hospital characteristics include number of licensed beds, urban versus rural status, and teaching status. Hospital rural and urban status was determined based on the American Hospital Association (AHA) database updated monthly¹²². Teaching status, ‘teaching’ versus ‘non-teaching,’ was identified by using the Council of Teaching Hospitals and Health Systems (COTH) database from the Association of American Medical Colleges (Table II)¹²³. The number of licensed hospital beds was extracted from the OHCQ database, which was consistent with the AHA database^{120, 122}. The AHA reports bed size based on numeric categories. In this study, hospital bed size was classified into three categories: ‘small (less than 200 beds),’ ‘medium (200 to 299 beds),’ and ‘large (300 or more beds)’ based on the number of beds the hospital reported to AHA’s 2014 database¹²⁴. Participant characteristics included gender, education, title & role, role responsibilities, tenure in their current position and in the primary institution (Table II).

A mixed methods approach to analyzing the data included both quantitative and qualitative approaches. Quantitative responses to the interview questions for Parts I, II and III were summarized and presented in text and in graphic tables. Descriptive plots were created for categorical and agreement-scale responses. A qualitative approach was selected for coding the text and open-ended responses, where coding was performed by one primary coder. Since there is limited research on this topic, a conventional approach to qualitative content analysis was used in this study. In an effort to organize the data, the text was read multiple times and memos were written to include key notes from the transcripts. After the data were summarized, codes, categories and subcategories from the open-ended responses were extracted from the data. Similar patterns and themes across the various hospital and participant characteristics were identified. Contextual relationships and comparisons were made based on hospital and participant characteristics. Subsequently, direct quotes, proportions, and descriptive plots were created to identify patterns in the data.

RESULTS

Results from both the questionnaire and interviews are organized and presented based on five domains: (I) awareness of the second victim problem, (II) current organizational support that is offered, (III) assessment of the need for organizational support, (IV) development of an organizational support program, and (V) ability to access organizational support if offered. Each section below first discusses quantitative findings

from the questionnaire and then summarizes themes which emerged from qualitative coding of the interview responses.

Extent of Second Victim Problem

Participant awareness. When asked their opinion on the extent of the second victim problem in their organization, more than half of the participants believed that it was either ‘extremely relevant’ or ‘very relevant.’

TABLE III: EXTENT OF SECOND VICTIM PROBLEM (n=43)

Extent of the Second Victim Problem (n=43)		
Category	n	(%)
Extremely relevant	21	48.8
Very relevant	14	32.6
Somewhat relevant	6	14.0
Slightly relevant	2	4.7
Not at all relevant	0	0.0

Participants were asked to estimate the number of staff who became distressed in a given year. Estimates ranged from 20 to 4,800 to everyone in the organization. For example, a director who oversees social work indicated:

“I don't know if we are really lucky. I don't know if we have that many events... I think our staff is good at recognizing if there is an error; they are good at pointing it out. I think they are supportive of each other. If I was to guess a number it would be less than 20—very, very low.” [small, rural, non-teaching hospital]

Alternatively, a director who oversees pastoral care at a large, urban, teaching hospital stated:

“Many! It is a lot! I was thinking in terms of pastoral care. We look at the statistics for the number of staff we provide support to on a monthly basis--and this ranges from 300-400. So I think that's about a 10th of the staffing. But that's an underestimate--I think 2% there is documentation for.”

Some of these estimates were based on the number of annual reported adverse events, the number of root-cause-analyses or RCA's—the process of investigating mistakes to prevent them from happening again, debriefings that were conducted every year, and the participant's ability to identify a second victim after an event has occurred. A Director of Risk Management at a small, rural, non-teaching hospital said:

“I'm thinking of our sentinel events and thinking of our near misses. And not all of our sentinel events are death, but they are either death or permanent harm. And our near misses we do RCAs on and obviously those people are not injured. I'm thinking of more egregious ones where-- For instance there is one I am thinking of, it's a sentinel event, and I want to say for the RCA, I had almost 20 people in the room and some people didn't come. So that's an average of 25 there.”

Additionally, estimates were also based on hospital bed size and the number of employed staff. At the same time, many participants were unable to quantify the number of second victims due to the difficulty of capturing that data:

“...there are 2 different ends to this: what you know and what you don't know. You can't answer what you don't know.” [Patient Safety Manager; medium, urban, teaching hospital]

“I don't know. But I have seen evidence of it. At least once a month, someone is distressed about a situation. And sometimes more than one person is distressed about the same event (when you do an RCA).” [Patient Safety Officer; small, urban, non-teaching hospital]

“We do quality of care reviews for the reportable events and we do a root-cause-analysis for and for other specific events--for these I know who is involved and who is affected. But for the other events, I would have no

idea.” [Director of Quality & Patient Safety; large, urban, teaching hospital]

Executive leadership’s awareness. When participants were asked about their executive leadership’s awareness of the emotional impact of adverse on caregivers, 55.8% mentioned they were ‘very aware,’ 32.6% were ‘somewhat aware,’ and 11.6% were ‘minimally aware.’ None of the participants indicated that their executive leadership was ‘unaware’ of the second victim problem.

I. Current Support Offered or Lack Thereof after an Event

Participants were presented with a scenario: “A nurse at your hospital contributed to a medication error that left an 8-month-old patient suffering from this error.” They were then asked to discuss the sequence of events that would take place at their institutions following this error, including the type of support second victims would receive.

Hospitals varied in the method in which they responded to this type of event if it were to take place at their organization. A few themes emerged from these responses, including: reinforcing a no-blame and just culture, balancing accountability with system defects, and understanding the root causes of the event to prevent it from happening again. Figure 1 portrays an example of a common path experienced by the hospitals. Some organizations disciplined their staff and included HR if the behavior was determined to be reckless or negligent. Other organizations were proactive in the way they provided support to staff as opposed to being reactive and recommending EAP services.

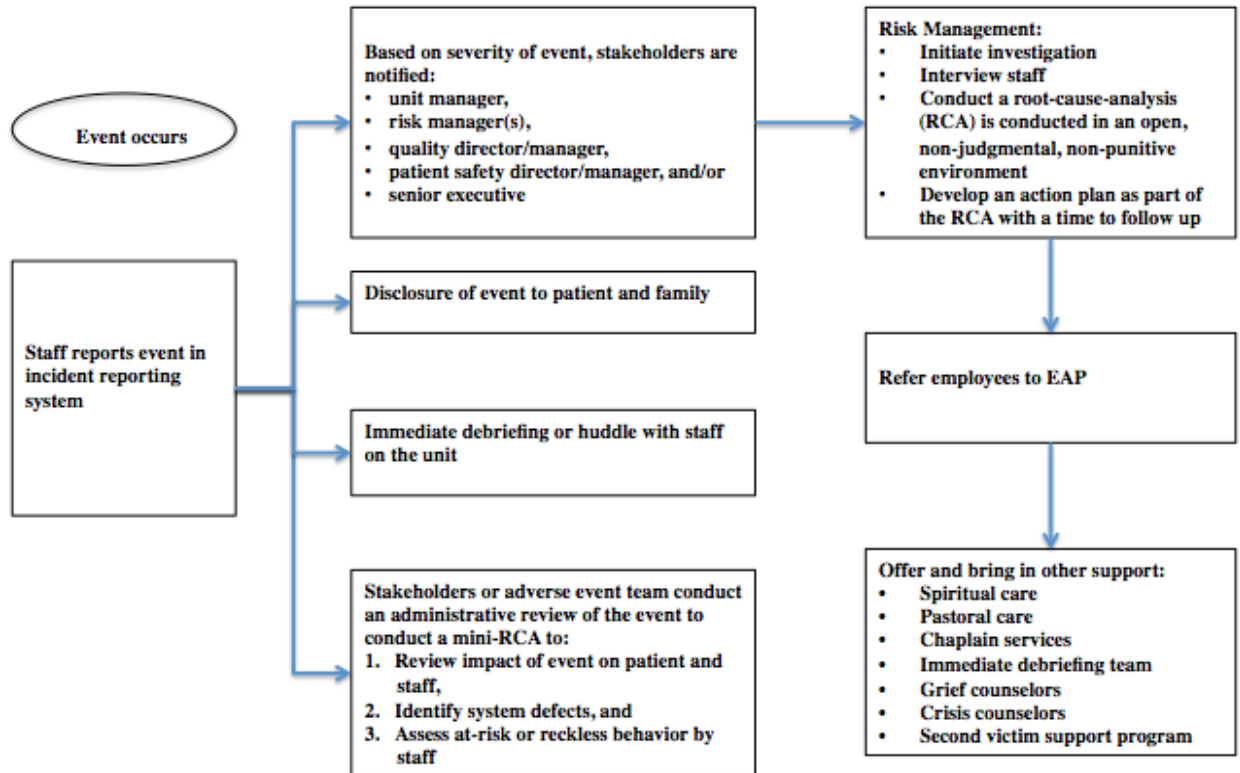


FIGURE I: SEQUENCE OF EVENTS AFTER AN EVENT OCCURS

Throughout this process, unit managers would be supportive of the staff member, including his/her feelings about the event, and focus on the details of the event rather than blaming the staff member for what happened. Some hospitals and managers took additional steps in recommending additional emotional support services to staff, such as grief counselors, chaplain services, or a second victim support program. A handful of hospitals indicated that there would be disciplinary action for the employee and that he/she would be referred to HR; this could lead to actions including to the nurse being suspended.

Most, if not all, of the participants believed that it is the organization's responsibility to support this nurse. However, some hospitals indicated that the organization would not be

responsible if the nurse's behavior was identified as at-risk behavior or negligent. One of the most common themes was the organization's responsibility to adopt a just culture and support the nurse and staff throughout the investigation process as well as during and after the RCA. The opportunity to allow this nurse to contribute to a change in clinical practice or a revision of an organizational policy would be one of the best approaches in handling the situation. Also, reinforcing a just culture among the staff on the unit was critical; this will prevent staff from blaming their colleagues. The second theme was the organization's responsibility in recognizing the nurse's feelings and referring him/her to EAP. The third theme was the need to establish a formal emotional support program beyond the EAP, which would be based on timely support provided by peers.

Assessment of the Need for Organizational Support

TABLE IV: ASSESSING NEED FOR ORGANIZATIONAL SUPPORT

	Strongly Disagree	Disagree Somewhat	Not Sure	Agree Somewhat	Strongly Agree	Total
believe that hospitals should offer a support program for their own staff who become "second victims"?	0% 0	0% 0	0% 0	2.33% 1	97.67% 42	43
believe that an organizational support program will be helpful in addressing second victims' needs?	0% 0	0% 0	6.98% 3	11.63% 5	81.40% 35	43
agree there is enough of a need at your organization to devote resources to a support program?	0% 0	11.63% 5	16.28% 7	34.88% 15	37.21% 16	43

- a. Hospitals should offer a support program for their own staff

Almost all (97.7%) participants strongly agreed that hospitals should offer a support program for their staff who become second victims. A few participants indicated the importance of offering support based on their past experiences as a clinician and based on recent events that occurred in their institutions:

“... I worked on the clinical side. And I know it is very stressful, time consuming, and emotional when there is an adverse event. Certainly a support program would be awesome.” [Quality Manager; medium, urban, teaching hospital]

“Just thinking of two stressful events that have happened in the past 16-18 months. I think we really had to be creative and try to find resources for staff who are second victims. Where if we had an organized program, it would be well received and utilized. It's really hard to pull it together after the event without a structure. And the emotions are running so high, and you need to have something in place so when an event happens, you are ready to respond.” [Manager of Accreditation & Regulatory Compliance; medium, urban, teaching hospital]

“I have been a nurse for 34 years... And clinical incident stress debriefing and support programs are critical for staff... I have done clinical research, and it is very, very stressful and we do second guess ourselves and we still remember things over the course of the years. I have not been at [this institution] long enough to really have a sense what resources they are willing and able to devote to a support program. But do I believe that there is something that is needed? Absolutely.” [Patient Safety Officer who oversees risk and compliance; small, urban, non-teaching hospital]

b. Organizational support program will be helpful in addressing second victims' needs

An overwhelming proportion of participants agreed (93%) that an organizational support program would be helpful in addressing second victims' needs. A clinical director working at a large, urban, teaching institution indicated:

“... I have taken the responsibility with a group of nurses in creating a support program for our employees involved in a critical incident... We identified that it was helpful and the hospital should offer it and that there is enough of a need and its hard to quantify but we feel strongly that we have an impact on retaining those nurses and keeping them in their work environment thanks to the support that we have been able to offer and the bridge to EAP that we have created.”

An executive at a medium, urban, non-teaching hospital also agreed:

“We need to get better at supporting the second victim.”

However, a few were unsure of how the support program would be structured and how it would function. One risk manager at a large, urban, non-teaching hospital said:

“I don't know what it would look like or how it would be implemented. So I don't know if it would be helpful or not.”

Some participants believed that in order for support to be helpful, it is essential to clearly state the intent of the program and how it is designed to be confidential. A patient safety manager said:

“I think if the employee understood that this was something confidential, there is no documentation and it was a time to focus on their needs solely—and it's like what happens in Vegas stays in Vegas, I think they would be extremely willing...” [medium, urban, teaching hospital]

A director of nursing and patient safety also expressed the same concerns:

“I think initially staff will be hesitant to use the support services in our organization due to a culture of mistrust. If the support service was designed to be confidential, anonymous, and beneficial, overtime employees will readily use the service.” [medium, urban, teaching hospital]

Others indicated that not every staff member will access the support if it is offered. One executive who oversees patient safety at a small, urban, non-teaching hospital said:

“I don't think that the second victim will always take the help we offer them.”

c. Perceived need justifies investment resources to a support program

Most of the participants (72.1%) agreed that there is enough of a need at their institutions to devote resources to develop a support program. However, the level of agreement varied based on the reasons mentioned below. Some institutions have already started developing a program by utilizing existing resources. One risk manager mentioned:

“... I think the need to devote resources to a support program to some extent can be found within the resources we have already—so not necessarily new resources. I don't think we need to hire new staff to do it. I think we can prioritize existing staff. Support comes from your peers and your managers.” [large, urban, non-teaching hospital]

A few organizations believed that they already have a strong employee assistance program that supports second victims' needs. Many hospitals indicated that resources and funding were scarce, and developing a program would be challenging. A patient safety manager at a medium, urban, teaching hospital said:

“I think from the need perspective, I strongly agree. Whether we have the resources to really implement this is the question at this point. Because people are pulled in so many different directions.”

An executive also agreed and mentioned:

“I know financial resources are somewhat tight right now, so I just don't know if they can afford to provide additional resources at present.”
[medium, urban, teaching hospital]

Some hospitals mentioned that if they were given a guide to implement a program to implement, they would be more likely to embrace it. The reason for this is that it will take time and additional resources to research and plan how and what the support program would look like. A quality and patient safety coordinator at a small, urban, non-teaching hospital said:

“I think if we brought it to a forefront and there was data to show the impact and the benefit, then it would be more sell-able. But obviously in healthcare, resources are so scant... I definitely think it would be beneficial.”

Some of the smaller hospitals believed that due to their size, they would not necessarily devote additional resources to develop a support structure. For instance, a patient safety officer at a small, urban, non-teaching hospital said:

“It's a smaller hospital. And the culture here is much more family-like. Folks that work at this hospital are here for a very long time. And they have their own family support system in place, which makes a big difference.”

A Director of Social Work also agreed:

“...We have an advantage of having a small hospital. So when I think in terms of a larger hospital or a trauma hospital where things are more hectic, then I absolutely strongly agree, they should have a support program for their staff...Because we are a close-knit community... those negative health events that are going on, so just the illness itself, not necessarily an error, sometimes they are traumatic to hospital staff because sometimes they are working with their friends, family or their family.”
[small, rural, non-teaching hospital]

II. Development and Barriers to An Organizational Support Program

TABLE V: BARRIERS TO DEVELOPING A SUPPORT PROGRAM

Barriers to Developing a Support Program (n=43)		
	n	(%)
Funding	29	27.10
Stigma	15	14.02
Trust & concerns about confidentiality	14	13.08
Lack of interest on the part of staff	11	10.28
Uncertainty about best practices	10	9.35
Lack of clinical leaders to serve as peer support personnel	6	5.61
Buy-in by executive leadership	4	3.74
Legal or regulatory concerns	4	3.74
Other		
Education	5	4.67
No barriers	4	3.74
Time	3	2.80
Resources & Infrastructure	2	1.87
Don't know	0	0

The five most frequent barriers to the development of an organizational support program included funding, stigma, trust & concerns about confidentiality, lack of interest on the part of staff, and uncertainty about best practices (Table V). Participants described additional barriers that were not included in the original list of barriers. These included education, time & lack of ability to access support, resources & infrastructure.

‘Education’ referred to both: the lack of individuals’ ability to understand the long-term stress of repeated adverse events as well as the awareness about understanding the purpose of the program. One patient safety officer mentioned:

“I feel how you communicate that message is how the staff will react or not react at all. That comes from the very top where the individuals are leading the organization.” [large, urban, teaching hospital]

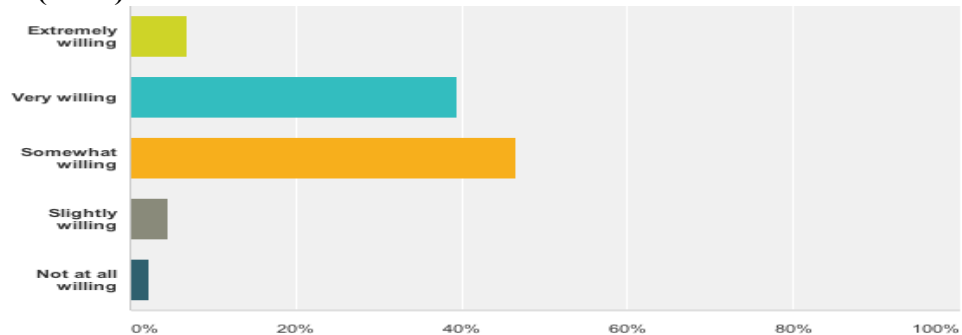
Some participants could not identify any barriers that would hinder their ability to develop a program. Others mentioned that as they are developing their support program, they are not encountering any barriers. Some participants believed having time to access the support would be a barrier; for instance, a staff member’s lack of ability to be released from unit to access support is an issue. Finally, a few participants indicated that resources and infrastructure in general would be a barrier to developing a program. A Director of Quality at a medium, urban, teaching hospital said:

“Volume. If we felt there was something like this, we don’t have a volume to support developing a structured program.”

Willingness of Staff Members to Access Organizational Support

If organizational support was offered to second victims, many of the participants indicated that staff would be ‘somewhat willing’ (46.5%) or ‘very willing’ (39.5%) to access support (TABLE VI).

FIGURE II: WILLINGNESS OF STAFF TO ACCESS ORGANIZATIONAL SUPPORT (n=43)



Answer Choices	Responses	
Extremely willing	6.98%	3
Very willing	39.53%	17
Somewhat willing	46.51%	20
Slightly willing	4.65%	2
Not at all willing	2.33%	1
Total		43

TABLE VI: RATIONALE FOR WILLINGNESS TO ACCESS ORGANIZATIONAL SUPPORT (n=43)

If organizational support were available for employees involved in stressful patient-related events, how willing to you think employees would be to use it? Why or why not?	n	(%)
Staff are willing to discuss the event	16	29.1
Participants are unsure of staff response to a new program	8	14.6
Existence of no-blame culture	7	12.7
Stigma in asking for help	6	10.9
EAP is currently offered to staff	5	9.1
Staff do not recognize a need to access support	5	9.1
Staff prefer informal support	5	9.1
Issues with trust and concern about confidentiality	3	5.5
Total	55	100

Participants were asked to describe the rationale for staff members' willingness to access organizational support. Many of the participants indicated that staff were open and willing to discuss the event and acknowledge what they are going through after being involved. Some participants mentioned that staff would like to talk about the event in an open setting with their peers. This will not only reinforce their personal and professional competencies, but it will also help second victims better understand that errors are the result of a system and not an individual's fault. One participant indicated that some tenured clinicians will say, "I was involved in an adverse event. I want support." A patient safety director from a small, rural, non-teaching hospital mentioned:

"I run all the root cause analyses here...and usually staff are really affected no matter how big or small the event and always willing to participate in these events and openly sometimes talk about their grief and how it affected them. I do think it would be helpful and I do think they would seek it."

A manager who oversees accreditation and regulatory compliance said:

“When we have these events, the staff feels abandoned sometimes. Where is the organization for me? Why does it take so long to find something? They want support.” [medium, urban, teaching hospital]

Other participants mentioned that they are unsure of how staff would react to an organizational support program, given that a second victim program would be a novel concept in their hospital. However, in their experiences, the participants reported that staff would be willing to use a program only if it was well structured, well presented, and where staff would have a good understanding about the program goals. Additionally, a few participants believed that staff would access organizational support if a no-blame and just culture was in place rather than in a punitive environment where staff would be hesitant and reluctant to talk about the error. An executive who oversees patient safety at a large, urban, non-teaching hospital said:

“I think that if people are comfortable in a position or in an environment that they feel safe accessing help and support, then I think they will do it.”

Other participants indicated that staff would less likely to access a program because there is social stigma and shame in reaching out for support. Some participants believed that staff would be concerned about trust and confidentiality of an organizational support program. Furthermore, a few participants mentioned that some staff do not recognize the importance of accessing support after an adverse event and would rather not ask for outside assistance or place things ‘on the back burner and move on.’ A Director of Quality, Patient Safety and Risk Management said:

“There are some people that believe they don’t need it [organizational support] and personally been involved with people who are in stressful events and don’t talk about it and then later talk about how they can’t sleep and feel very stressful.” [large, urban, teaching hospital]

It was felt that some staff would not activate organizational support since an employee assistance program is already offered to staff that need help. On the other hand, some participants indicated that even after they have offered EAP services to their staff, staff would prefer to speak to their peers about the event. A patient safety officer at a small, urban, non-teaching hospital also agreed:

“There is a lot of support: nurse to nurse within the organization. That’s the more comfortable avenue for people.”

DISCUSSION

This study assessed the perceived need for organizational second victim support services among patient safety representatives in acute care hospitals in Maryland. Participants shared their perceptions on the extent of the second victim problem and how it impacts patient care, as well as the need for organizational support. Results suggest several important findings, as well as avenues for future research.

All participants reported that they and their executives were aware that the second victim problem exists in their institutions and realized that this could impact patient care.

However, the level of awareness varied across hospitals and participants. This is consistent with results from previous studies^{125, 126, 127, 128, 129, 130}.

Furthermore, participants agreed unanimously that hospitals should offer organizational support programs for their own staff that become second victims. This is consistent with other findings in the literature¹³⁰. However, participants varied in their perceptions of whether organizational support would be helpful in addressing second victims’ needs.

Some participants reported that employee assistance programs already offer support, and were unsure of how staff would react to a new support program offered by the institution. In the scenario that was presented, almost all of the participants believed that it is the organization's responsibility to support the nurse who contributed to the error. However, some hospitals indicated that the organization would not be responsible if the nurse's behavior was identified as at-risk behavior or negligent. If some of the participants felt this way toward the nurse, then this will perhaps make the second victim feel worse about the outcome.

When asked about staff members' willingness to access organizational support, many of the patient safety representatives believed that staff were willing to discuss the event with or among peers and if it was transparent, well-structured and well-presented. It is apparent that regardless of the organizations' efforts in promoting a no-blame, just culture, there continues to be stigma attached with speaking up during an RCA since some staff are disciplined after an event is reported, and accessing support if it was offered to employees. Furthermore, some staff would value informal peer support rather than accessing organizational support. Regardless of the type of support that is offered, formal versus informal, it is apparent that there is an unmet need.

In the event that an organization should plan to offer a support program, participants indicated that the top barriers to developing a program include funding, stigma, trust and concerns about confidentiality, lack of interest on the part of staff, and uncertainty about

best practices. Given that these barriers are common for any newly developed program, it is important that institutions offering staff support dedicate resources to education on the importance of seeking support as it relates to personal lives and professional roles. Some participants indicated that if there were data that support the benefit and impact of a second victim program on clinicians, then they are more likely to adopt a program. This should be an area of focus for future research.

It was apparent that smaller hospitals were less likely to develop a second victim program due to the strong social support present in their institutions. However, limited resources are a barrier to developing a program regardless of the hospital's size, teaching status, and urban/rural status.

In summary, our findings support the ubiquity of the second victim problem in acute care hospitals, and the importance of having an organizational support system, and shed light on barriers to providing such a system. Our findings echo previous calls for developing and offering clinician support¹³⁰. For these services to be used, patient safety leaders should communicate a compelling vision to promote a just culture of patient safety, so that staff in need feel it is safe to access support.

There is no consensus in the field on best practices in providing support. Johns Hopkins Hospital is developing a guide to replicating components of its second victim support

program, RISE (Resilience In Stressful Events), including tools, questionnaires, and a roadmap for organizations to implement and evaluate their own programs.

Results from the current study provide support for future work to establish organizational second victim support services and to influence policy decisions that affect caregiver support. Additionally, this study adds to a growing body of literature regarding second victim support in healthcare organizations^{131, 132, 133, 134}.

LIMITATIONS

One of the challenges of conducting this study was to identify individuals to participate in the study. Since hospitals vary in their patient safety and quality structures, there was a lack of consistency in the definition of role of the participants, which included patient safety officers, managers, directors and executives. Additionally, these participants varied in the scope and type of responsibilities included in their positions, such as quality of care, patient safety, quality management, risk management, infection control, regulatory and accreditation, etc. This may have reduced the validity of their reports. We did not interview frontline health care workers, whose perceptions may differ from managers, and who may have been able to articulate additional barriers to their use of support services. Another limitation relates to the fact that the interview questionnaire has not been validated; however there is no comparable survey that could have been utilized. Additionally, there may have been some bias in conducting and coding the interviews since these were performed by one individual (HE). Finally, all of the participating hospitals were located in Maryland. Hospitals in other regions may

experience different barriers and issues. Similar studies should be conducted in other regions and even countries.

CONCLUSION

This study describes the second victim problem Maryland hospitals from the perspective of institutional leaders in patient safety, and the efforts and aspirations of institutions to provide psychological support to their health care workers. There are several implications for practice and policies. Hospitals should implement second victim programs to assist their staff in effectively coping with their emotions following an unanticipated adverse event. State and Federal institutions should support these efforts. Future research would benefit information on desired features and barriers to implementation from additional stakeholders, including second victims, senior executives, and perhaps even patients. Additional research should focus specifically on the stigma second victims experience after they report an adverse event. Manuscript #2 focuses on features and services of an ideal support structure as well as examples of existing second victim programs in Maryland hospitals.

[TABLE I: INTERVIEW GUIDE QUESTIONNAIRE]

PART 1: DEMOGRAPHICS

1. What is the name of the institution where you work?
2. What is your gender?
3. Please tell me the exact title of your position.
4. How long have you held this position?
5. What is your degree/certification?
6. Please tell me what responsibilities are included in your position
7. Where is patient safety located on your hospital's organizational chart? Please provide a copy of the organizational chart.
8. To whom do you report?
9. Are there other staff who primarily work on patient safety? How large is the patient safety effort in your hospital in terms of FTE's?
10. How many years have you worked at your primary institution?

PART 2: ASSESSING NEED FOR SUPPORT PROGRAM

2. To what extent do you believe the second victim problem is relevant to your organization?
3. In any given year, how many hospital staff do you believe become distressed as a result of unanticipated stressful patient related events?
4. To what extent do you:
 - a. believe that hospitals should offer a support program for their own staff who become "second victims"?
 - b. believe that an organizational support program will be helpful in addressing second victims' needs?
 - c. agree there is enough of a need at your organization to devote resources to a support program?
5. If organizational support were available for employees involved in stressful patient-related events, how willing to you think employees would be to use it?
 - a. Why or why not?
6. In your opinion, which of the following represent barriers to developing a program for caregiver support in your organization?
7. In your opinion, what is your executive leadership's awareness of the emotional impact of adverse events on caregivers.
8. Do you have an employee assistance program?
9. In what way does your employee assistance program play a role in second victim support?
10. Consider the following scenario: A nurse at your hospital contributed to a medication error that left an 8-month-old patient suffer from this error.
 - a. What would happen at your institution following this event?
 - b. What do you think is the organization's responsibility in supporting this nurse?

11. If organizational support is provided for employees involved in stressful patient-related events, what features/services would be helpful to employees?
12. If you were in a situation where you were a second victim, what type of organizational support would be helpful?

PART 3: SUPPORT STRUCTURE AT YOUR HOSPITAL

1. Does your organization have a program to offer your caregivers emotional support following adverse events?
 - ☐ Yes
 - ☐ No
 - ☐ Not currently, and we are in the planning phases
 - ☐ Don't Know

**If you answered "YES" to the previous question, please continue to SECTION A.

** If you answered "NOT CURRENTLY, AND WE ARE IN THE PLANNING PHASES" to the previous question, please continue to SECTION B

** If you answered "NO" or "DON'T KNOW" to the previous question, skip to SECTION C

SECTION A:

I: How is your program structured and who supports it?

1. How long has your program been in existence?
2. Who leads the program? (Choose ALL THAT APPLY)
3. Do you have a manual, policy, or guide for providing emotional support to caregivers?
4. Who provides support for caregivers? (Choose ALL THAT APPLY)
5. Is your program prepared to respond to groups of caregivers as well as individuals?
6. Is caregiver support after adverse events part of your facility's Wellness Program?
7. How is caregiver support at your facility designed to be confidential?
8. How is caregiver support funded financially?

II: How is support accessed and provided?

9. Please select the situations in which support is offered to a caregiver:
10. What mechanisms are available for caregivers to access support?
11. Is there a mechanism to arrange time away from clinical service for caregivers involved in an adverse event?
12. In your opinion, which of the following represent a barrier to caregivers ACCESSING support at your institution? (Choose ALL THAT APPLY)

III: Program outcomes and maintenance

13. In your opinion, how effective is your program with regard to:
 - a. Identification of caregivers in emotional distress because of involvement in an adverse event?
 - b. Provision of support for caregivers in emotional distress?
 - c. Helping staff return to work after being involved in an adverse event?
14. What improvements would you make to the existing program?
15. Any additional thoughts or comments on the topic of support for healthcare workers involved in adverse events?

SECTION B

I: How will your program be structured and supported?

1. Have you identified people to lead the program?
2. Will you have a manual, policy, or guide for providing emotional support to caregivers?
3. Who will provide support for caregivers?
4. Will training on how to support caregivers be available to those who provide support?
5. Will your program be prepared to respond to groups of caregivers as well as individuals?
6. Will caregiver support after adverse events be part of your facility's Wellness Program?
7. How will caregiver support be designed to be confidential? Support will be...
8. Will your program be (Choose ONE):
9. How will caregiver support be funded?

II: How support will be accessed and provided in your proposed program

For your proposed caregiver support program:

10. Please select the situations in which support will be offered to caregivers
11. What mechanisms would be available for caregivers to access support?
12. Will your program have a mechanism to arrange time away from clinical service for caregivers involved in an adverse event?
13. Any additional thoughts or comments on the topic of support for healthcare workers involved in adverse events?

SECTION C

1. Was a previously existing support program discontinued? Please explain.
2. Any additional thoughts or comments on the topic of support for healthcare workers involved in adverse events?

MANUSCRIPT #2

“Do Maryland Hospitals Support Second Victims? Collective Insights from Patient Safety Leaders”

ABSTRACT

Background: Second victims, healthcare providers who become emotionally traumatized after experiencing an unanticipated adverse event, are often challenged in seeking emotional support after an adverse event has occurred. Even though most organizations offer employee assistance program (EAP) services, second victims may hesitate to access this support due to mistrust and perceived lack of confidentiality. The purpose of this study was to describe the extent to which organizational second victim support is perceived as desirable by acute care hospitals in Maryland, and to identify existing second victim support programs.

Methods: This mixed-methods research study included a sample of 43 patient safety representatives from 38 acute care hospitals in Maryland (83% response rate). Semi-structured interviews were conducted using original questions and a pre-existing questionnaire. Qualitative data were analyzed using the QSR *NVivo10* software.

Results: Although hospitals offer EAP services to their employees, there continue to be gaps in the services that are provided regards timeliness of intervention, EAP staffs experience relating to clinical providers, and physical accessibility. There is also no effective measure of the effectiveness of these services. Additionally, there is a need for peer support for both the second victim and for the individuals who provide that support. Approximately 18% of the Maryland hospitals offer a second victim support program. Details on the structure, accessibility, and outcomes for these programs are described.

Conclusion: Based on participants' perceptions, organizations should re-evaluate the way in which their EAPs support staff members or offer additional support services. Future research should focus on developing tools to evaluate the effectiveness of second victim programs.

INTRODUCTION

“Thank you all for taking the time to participate in today’s root-cause-analysis. We do have an employee assistance program that is available to you free of charge.” An unfortunate patient event had occurred in a large teaching hospital. The hospital’s risk management staff had just completed a root cause analysis (RCA) for the 5-B Med-Surg staff. A physician, a few nurses, and technicians were involved in an adverse event that led to severe harm for their patient. However, the incident affected not only these clinical providers, but also everyone on the unit. The patient had been in the same unit for months and was well known by all. Conducting an RCA offered the staff with an opportunity to share the facts of the story, identify defects in the system, and learn about opportunities for improvement.

“It was helpful to provide feedback on how to improve the system, but what about how horrible I still feel?” thought the physician who was involved. This was the first time he had felt really badly about a patient outcome. In the past, he had heard some of his colleagues’ responses to others who made mistakes: “Didn’t you learn that in medical school?” “Pull yourself up by the bootstraps and get back to your patients.” “Oh! I can’t believe you did that!” He knew that none of these responses would help him cope with what had happened. In fact, it was one of the reasons he did not speak much during the RCA. The last thing he wanted was for his physician and nursing colleagues to think he was clinically incompetent.

He decided to call the employee assistance program (EAP) to talk to somebody about how badly he felt. “We’d be happy to talk to you Dr. S. Let’s schedule time for the end of next week.” Waiting for 2 weeks to talk to someone who does not understand the intensity of working on a clinical unit was just too much. Since there was nowhere else he could turn to, it was more convenient for this second victim to suffer in silence.

It can be challenging for second victims – health care workers who are traumatized by patient adverse events - to receive timely support. Often EAPs must respond to a large volume of employee requests. In other cases, second victims are reluctant to contact their EAP because they don’t believe that professional counselors have the clinical experience needed to relate to the second victim and the event. In still others, they worry that the EAP may report back to their supervisor. Patients safety leaders clearly acknowledge the importance of having an employee assistance program to support healthcare providers and employees after adverse events, but is this enough?

In addition to EAP services, some institutions have additional resources to assist staff in coping with emotional problems, such as pastoral care services or debriefing teams. A few hospitals have gone further and developed emotional support programs for second victims. A growing number of studies have emphasized the need to develop institutional emotional support programs for healthcare providers^{135, 136, 137, 138}. However, little is known about what proportion of hospitals have such programs.

The purpose of this study was to describe the extent to which organizational second victim support is perceived as desirable by patient safety representatives in Maryland acute care hospitals, and to identify and describe existing second victim support programs.

METHODS

Design

This was a mixed methods study using interviews that included both structured and semi-structured questions. IRB approval was obtained from the Johns Hopkins University Bloomberg School of Public Health.

Setting & Participant Selection

The population for this study included hospital staff who oversee patient safety programs and event reporting processes in all of the 46 acute care hospitals in the state of Maryland that are regulated by the Department of Health and Mental Hygiene: Office of Health Care Quality (OHCQ)¹³⁹. These individuals were identified for each hospital and invited via phone or email to participate in the study. The study sample included 43 participants representing 38 hospitals; this resulted in an 83% response rate. Hospital characteristics included the number of licensed beds, urban versus rural status, and teaching status. Urban/rural status and the number of licensed hospital beds was determined from the OHCQ database, which was consistent with the AHA^{139, 140}. Hospital teaching status

was determined using the Council of Teaching Hospitals and Health Systems (COTH) database from the Association of American Medical Colleges¹⁴¹. Semi-structured, in-depth interviews were conducted via telephone between December 2013 to February 2014.

Variables

The main dependent variables were employee assistance programs, organizational support for employees, organizational support for participants (patient safety leaders), second victim support programs, perceptions about beneficial features and services of an ideal organizational support program, and information on existing second victim programs (Table I). Some of the questions were drawn from an existing survey on whether and how hospitals support staff after adverse events, and feature of existing support programs¹⁴², while others were newly developed for this study.

Independent variables included hospital characteristics (i.e. teaching status, urban/rural status, bed size) and participant characteristics (i.e. gender, role, education, number of years at institution, number of years in their position).

Data Collection Procedures

An interview guide was developed to collect information on participant characteristics, attitudes and perceptions ideal and existing support programs. Both quantitative and qualitative questions were included in the interview guide. Field notes were recorded

during and after the interviews to capture thoughts, recurring themes, and additional comments. The average interview lasted approximately 33 minutes. Verbal consent was obtained to audio record the interviews, which were then transcribed verbatim.

Anonymity of participants and hospitals was assured.

Data Analysis

Demographics and quantitative closed-ended responses from the questionnaire were summarized using counts and proportions. Descriptive tables were generated to display information on structure, access, and program outcomes for the existing second victim programs. Comparisons were made based on hospital and participant characteristics. Qualitative data were coded and analyzed by a primary coder using the QSR *NVivo10* qualitative data analysis software. Representative quotes were selected and are presented.

TABLE VII: TABLE OF MEASURES

Independent Variables	Measures/Interview Questions & Scales	Citation/ Source of Question
Participant characteristics	Gender Female Male Education MD JD RN MSN PhD CPHRM CPHQ ARM CPCU Other	manuscript #1

	<p>Title & Role</p> <p>Officer</p> <p>Manager</p> <p>Director</p> <p>Executive</p> <p>Role Responsibilities</p> <p>patient safety</p> <p>quality of care</p> <p>quality management</p> <p>risk management</p> <p>infection control</p> <p>emergency preparedness</p> <p>Number of Years in Position</p> <p>less than a year</p> <p>1 to 5 years</p> <p>6 to 10 years</p> <p>11 to 15 years</p> <p>more than 15 years</p> <p>Number of Years at Primary Institution</p> <p>less than a year</p> <p>1 to 5 years</p> <p>6 to 10 years</p> <p>11 to 15 years</p> <p>16 to 20 years</p> <p>over 20 years</p>	
Hospital characteristics	<p>Teaching Status</p> <p>Teaching</p> <p>Non-teaching</p> <p>Bed Size</p> <p>Small (less than 200 beds)</p> <p>Medium (200-299)</p> <p>Large (300 or more beds)</p> <p>Urban/Rural Status</p> <p>Urban</p> <p>Rural</p>	Manuscript #1
Dependent Variables		
Employee Assistance Programs	Do you have an employee assistance program? [Binary: Yes/No]	Original Question
	In what way does your employee assistance program play a role in second victim support? [open-ended]	Original Question

Organizational support for employees	If organizational support is provided for employees involved in stressful patient-related events, what features/services would be helpful to employees? [open-ended]	Original Question
Organizational support for participants (patient safety leaders)	If you were in a situation where you were a second victim, what type of organizational support would be helpful? [open-ended]	Original Question
Second Victim Support Program	Does your organization have a program to offer your caregivers emotional support following adverse events? [closed-ended]	“Healthcare Worker Support after an Adverse Event” survey ¹³⁵
Summary of Measurement Variables for Existing Second Victim Program		
Dependent Variables/Domains	Measures/Interview Questions & Scales	Citation/Source of Question
Structure of Program	How long has your program been in existence? [open-ended]	“Healthcare Worker Support after an Adverse Event” survey ¹³⁵
	Who provides support for caregivers? [closed-ended]	
	Is your program prepared to respond to groups of caregivers as well as individuals? [binary: yes/no]	
	How is caregiver support at your facility designed to be confidential? [closed-ended]	
	How is caregiver support funded financially? [closed-ended]	
Access to Program	Please select the situations in which support is offered to a caregiver. [closed-ended]	“Healthcare Worker Support after an Adverse Event” survey ¹³⁵
	What mechanisms are available for caregivers to access support? [closed-ended]	
	Is there a mechanism to arrange time away from clinical service for caregivers involved in an adverse event? [closed-ended]	
	In your opinion, which of the following represent a barrier to caregivers ACCESSING support at your institution? [closed-ended]	
Program Outcome & Maintenance	In your opinion, how effective is your program with regard to: [5-point Effectiveness Scale] a. Identification of caregivers in emotional distress because of involvement in an adverse event? b. Provision of support for caregivers in emotional distress?	“Healthcare Worker Support after an Adverse Event” survey ¹³⁵

	c. Helping staff return to work after being involved in an adverse event?	
	What improvements would you make to the existing program? [open-ended]	

RESULTS

There was an 83% response rate to the interview. Most (86.6%) of the hospitals were urban, approximately 44.7% of the hospitals were teaching institutions, and most (42.1%) were categorized as ‘small’ versus 34.2% ‘medium’ (34.2%) or ‘large’ (23.7%) (Manuscript #1:Table II).

TABLE II: HOSPITAL AND PARTICIPANT DEMOGRAPHICS
(citation: Manuscript #1)

<u>Hospital Demographics</u>	n (%)
Total	38 (100)
Bed Size	
Small (less than 200 beds)	16 (42.1)
Medium (200-299 beds)	13 (34.2)
Large (more than 300 beds)	9 (23.7)
Teaching Status	
Teaching	17 (44.7)
Non-Teaching	21 (55.3)
Urban/Rural	
Urban	33 (86.8)
Rural	5 (13.2)

<u>Participant Demographics</u>	n (%)
Total	43 (100)
Gender	43 (100)
Female	39 (90.7)
Male	4 (9.3)
Education	83 (100)

RN	35 (42.2)
Masters Degree*	17 (20.5)
MSN	8 (9.6)
CPHQ	7 (8.4)
CPHRM	4 (4.8)
JD	2 (2.4)
Doctorate	2 (2.4)
Other**	8 (9.6)
* healthcare risk management, nursing informatics, business administration, health & public policy, public health, applied behavioral science, social work	
** certified by Infection Control Board, Certified Emergency Nurse, Certified Legal Nurse Consultant, EDD, RRT, Registered Health Information Administrator, PA, bachelor of science	
Title & Role	
Officer	7 (16.3)
Manager	21 (48.8)
Director	10 (23.3)
Executive	5 (11.6)
Role Responsibilities	
patient safety	38 (90.5)
quality of care	26 (61.9)
quality management	27 (64.3)
risk management	26 (61.9)
infection control	15 (35.7)
emergency preparedness	10 (23.8)
regulatory & accreditation	7 (18.4)
case management	5 (11.9)
rehabilitation services	2 (4.76)
other*	17 (39.5)
Number of years in position	
less than a year	11 (25.6)
1 to 5 years	17 (39.5)
6 to 10 years	5 (11.6)
11 to 15 years	6 (14.0)
over 15 years	4 (9.3)

Number of years in primary institution	
less than a year	3 (7.0)
1 to 5 years	9 (20.9)
6 to 10 years	6 (14.0)
11 to 15 years	6 (14.0)
16 to 20 years	4 (9.3)
Over 20 years	15 (34.9)

* emotional & spiritual support, crisis intervention, core measures, performance improvement/quality assurance, medical review committee, patient complaints, data analysis, environmental safety, occupational health education, strategic planning, health information management, safety communication & education, patient advocacy, social work, pastoral care, privacy compliance, employee & visitor safety

Themes from the interviews were categorized into employee assistance programs, desirable features and services of a second victim program, organizational support for patient safety leaders. Several emergent themes were extracted from the interview transcripts, including the role of employee assistance programs in providing support and the barriers of accessing their support, the importance of an easily accessible support program, the emotional support that is necessary for healthcare providers who are addressing second victims' needs, and features of existing second victim support programs in Maryland. These are described in greater detail below.

I. EMPLOYEE ASSISTANCE PROGRAM

All of the participants, with the exception of one, confirmed that their hospital offered an employee assistance program to staff. When asked about their EAP's role in providing second victim support, participants varied in their responses. Some hospital staff reported that they actively offered it to their employees during/or after a root-cause-analysis or if they felt that an employee was in need of EAP services. Generally, recommendations to use EAP services came from leadership, unit/clinical managers,

patient safety or risk managers. Other hospitals only mentioned EAP during hospital orientation. An executive from a small, urban, non-teaching hospital mentioned:

“Well if there is a situation with a nurse, we believe that the nurse is not mistaken. What we do with every RCA, one of the things I include in my script and what I say is that we have an EAP and remind them that they can be the second victim and encourage them to call them and talk to them [EAP] one time and if they need additional support then they can continue. We want them to at least make the first contact.”

A director of risk management and patient safety indicated:

“We use it quite liberally. We always try to offer it [EAP]... frequently we offer it to the entire department or group—maybe the people who were working that shift or whatever.” [large, urban, teaching hospital]

Another director of risk management from a small, rural, non-teaching hospital reminds staff to use EAP and reinforces the confidentiality aspect:

“We explain to them, ‘Please utilize this [EAP] resource.’ We pay for it and it costs them nothing. ‘It outlines again in bold that it's confidential. We will never know if you use it.’ ”

In some organizations, the employee assistance programs included a team of licensed counselors and social workers; whereas in one organization, one employee led the EAP.

Many participants mentioned that staff accessed the EAP for personal or work-related issues. For instance, one director who works at a small, rural, non-teaching hospital said:

“I don't know of any instance where someone went to EAP because they were a second victim (not that there isn't)... usually because of personal issues, work related issues, like schedules, problems with other co-workers, personal issues, or even some stress or like I said compassion fatigue or something like that.”

It is no doubt that EAP provides beneficial services to employees. Even though these services were readily available 24 hours and seven days a week to employees, many

participants indicated that there were some barriers to accessing the service. A few participants mentioned that their employee assistance program was not timely in responding to staffs' needs. In some cases, this forced the manager, patient safety representative, or executive leadership to access additional services to assist their employees; these services were internal or external to the organization. A Director of Patient Safety from a large, urban, teaching hospital mentioned:

“They [EAP] provide short term health evaluation and support, but are unable to meet the immediate response needs of second victims.”

A Director of Risk Management from a small, urban, non-teaching hospital believed:

“EAP is totally somebody objective and uninvolved--some people may want that, some people may want someone who knows about the situation in the hospital. It's also you don't have to wait until you get somebody on the phone, wait 'til you get somebody. It's a lot of waiting in line for things.”

Additionally, an executive who oversees patient safety in a small, urban, non-teaching hospital said:

“One time we had a child die, 8-month-old infant ... It was an extremely emotional experience. And this was one example where we called in a non-denominational officer to get a grief support counselor... Everyone cried... And we did this immediately –and the staff said thank you for doing it immediately after it happened, so it was something we implemented for that incident...”

Another executive also mentioned the importance of offering support resources in addition to the EAP:

“We do have resources here beyond the EAP... I think we would also bring in services as needed—based on what we needed specifically. I can't say that it is a comprehensive or necessarily well organized process.”
[medium, urban, non-teaching hospital]

On the same note, a senior director who oversees quality, risk, and safety in a large, urban, teaching hospital agreed and mentioned that his hospital developed a structured support program because EAP was not meeting the immediate needs of staff:

“... we recognized, it [EAP] wasn’t getting to people because we wanted people to be immediately available. It takes a couple of days for an EAP to respond, and it doesn’t seem to be in touch with the group debriefing, so now we have a critical incidence debriefing team.”

Some participants mentioned that their EAP services were not well-advertised or were only introduced during new employee hospital orientation. As a result, staff did not access it since they were unaware this service existed. Most EAPs were offered as an internal resource to staff on-site. However, there were a handful of programs that outsourced their EAP services or shared their program with another hospital. In these cases, some participants mentioned that it was difficult for staff to access support due to the off-site location. For instance, a director from a small, urban, teaching hospital said:

“Staff can definitely schedule an appointment and go see someone. The biggest barrier to that is that they are not physically located where we are.”

Due to confidentiality issues, all of the participants indicated that they did not receive formal feedback from EAP on the success of the interaction with the second victim. However, some participants indicated that they informally heard from staff that it was helpful for them to access EAP. A director who is responsible for risk management at a small, rural, non-teaching hospital mentioned:

“I believe I have heard nothing formal, but I do think that I have heard anecdotally people have absolutely utilized our EAP and it was useful to them.”

Another director who oversees patient safety at a medium-sized, urban, non-teaching hospital was unsure if staff were taking advantage of EAP services after it was being offered to them:

“We will give them [staff] that information to call them [EAP] to get support... I don’t know how many staff access the program. It’s possible that the staff is not contacting the EAP at all.”

In an effort to follow up with the employee on how he/she was feeling after the event, one participant from a large, urban, teaching hospital indicated:

“We ask the employee. We don't get into what occurred, but we'll say things like did you take advantage of the EAP and are things going better for you?”

Alternatively, an executive from a large, urban, non-teaching hospital does not follow up with employees after offering EAP to staff. However, she does sometimes receive informal feedback:

“Once we make the referral, we try to remain as distant as we can. And to be honest, once they are referred to our EAP, then that whole team handles them—we as leadership do not. And believe me, there are some people who come back to me and said, ‘Thank you so much for the referral. I have been to x number of sessions.’ And then they will just kind of divulge as much as they are comfortable with. And then with some people you just never know.”

When one participant was asked to explain what gap existed in the current EAP structure, a director from a large, urban, teaching institution responded:

“There is stigma attached to going to a faculty assistance program—‘there is something wrong with me’ kind of a message to people... When you're making a call to an employee assistance program, you are taking a leap

into you don't know who you will talk to and you hope you will get a good person. Whereas there is somebody local, and they are on your unit everyday, you know who you are talking to.”

Another participant, a director who oversees quality and risk, indicated that in her experience, EAP is generally not aware of how to support second victims:

“It doesn’t. Well because there is no awareness on the effect of adverse occurrences and the professionals who are involved. And therefore, there are no referrals to the EAP for that purpose. We need to know who to refer before we refer, and EAP needs to know what assistance a second victim needs and these conversations have not occurred. I don’t think the EAP is ready to provide these services. I don’t think that on their part they are aware of second victims as well.” [small, urban, non-teaching hospital]

At the end of the day, staff would like for someone to listen to them after they had experienced an unfortunate patient event. A director who regularly provides support to staff as part of her role said:

“Sometimes people don't need to go to an EAP program. They just need someone to listen to and move forward... And even though they [EAP] were there and available, people were not taking advantage of it. So this was kind of a bridge--having a specific program will help bridge to more long term programs, like [EAP] here.” [large, urban, teaching hospital]

II. DESIRABLE FEATURES AND SERVICES IN A SECOND VICTIM PROGRAM

Participants mentioned that if a second victim support program was offered to employees involved in stressful patient-related events, it would need to be confidential, well-structured, and well-articulated. A patient safety manager at a medium-sized, urban, teaching hospital indicated:

“I think it’s important to define the criteria and how the program would be

utilized and define what circumstances would best benefit the employee and then talk about how to engage with the employee... And the purpose needs to be clearly understood and trusted—that it is to help them [staff]; that it is confidential. There is no documentation. It's not moving into HR, not becoming disciplinary. It's not part of your performance. It is a program to help you work through and talk about what happened.”

All of the participants indicated that staff would benefit from a confidential support program that would allow them to talk to someone about the event and the feelings they experienced after the event. Whether this type of support would be offered individually or in a group setting would be at the discretion of the employee(s) to decide, given that staff benefited from different types of support. Some participants indicated that offering counseling in a support program, similar to what is offered in their current EAP, would be helpful. A patient safety director at a medium-sized, urban, non-teaching hospital mentioned:

“I think providing them [staff] with counseling and going through the grieving process is the most important thing. They [staff] need an open door, so if they do need to talk, they can feel free to do that. They might need time off if they are stressed.”

One patient safety officer agreed that counseling would be helpful, and also believed that it was important to address second victims' needs after the counseling session:

“Support groups aren't good for everyone: sometimes people are more introverted and don't like to openly share in group settings. So individual counseling sessions, so they can lend themselves to letting staff talk and talk about their sadness and their fears--I think that's one thing we don't necessarily address--is their fears moving forward.” [small, urban, non-teaching hospital]

Participants mentioned the importance of holding an immediate debriefing session following the occurrence of the event. A debriefing session would allow staff to identify

system defects, so that the event will less likely happen again. A quality and patient safety director from a large, urban, teaching hospital mentioned:

“So even if you may be the one committing the event, there is usually something in the Swiss cheese model where it could have been prevented and helping to understand what has led to the event in this case... Because you know when you are involved in the event, you will be more vigilant because it would not happen to them a second time, but it may happen to many thousands of others working in the institution... Sometimes when staff tell the story on what we have done to make the improvements, they are really the strongest advocates.”

Additionally, a debriefing would help identify how staff members reacted to and handled the event and which staff members would require additional support. A patient safety officer from a small, urban, non-teaching hospital indicated:

“... depending on the event, we have a formal debrief process for some of the events where we can start to identify people that may be struggling. And it would be very helpful if we had that service available 24/7.”

A director who oversees quality and risk at a small, urban, non-teaching institution also said:

“I think a really good immediate debriefing and offer to take some time off to gain some distance and recoup from event and then I think an offer to provide short term counseling or grief counseling around the event. And probably an open offer to the nurse for follow up should they need it because they would not know if there are medium or long term effects.”

Some participants mentioned that if a program was established, one of the most important features would be the timeliness and accessibility of the program to staff. Most of the participants mentioned that a 24 hour/7 days a week service would be beneficial since staff would not have to wait to receive support and since many of unfortunate incidents happen during off hours. A director from a large, urban, teaching hospital mentioned:

“What I would like to see that we don't have yet is a quick response--other than the immediate peers and manager, and that in off hours, the manager might not even be there.”

Similarly, a risk manager emphasized the importance of available and accessible support:

“I like the idea of real time assistance and not having to make an appointment. A hotline to discuss the event without having to schedule an appointment to see people’s concerns.” [medium, urban, teaching hospital]

Most importantly, participants emphasized the importance of establishing a just culture that would allow staff to access support in a non-punitive environment as well as provide them professional and personal reassurance. A patient safety manager from a medium-sized, urban, teaching hospital mentioned:

“We accept the fact that as human beings, we got to make mistakes and humans are not perfect—the system is designed to give you what you designed for it to do and sometimes the system fails you. Then, we also tried to understand that you need to be at the table [during a root-cause-analysis] because as the caregiver, as the person in this role, you are the best person to tell us how to fix it. You are the expert at the table as well. So hopefully we give them that support to recognize them as professionals and value their opinion.”

A director of quality and patient safety from a large, urban, teaching institution mentioned:

“What we find when we do our quality of care reviews, is that staff tend to blame themselves a lot. So talking through the event and hearing it will help them understand when events happen, it's not about them, it's about their processes and the processes could be improved.”

A patient safety officer emphasized the importance of learning from system defects and communicating lessons learned while continuing to reinforce a non-punitive just culture:

“... And then breach that gap by providing services and education at the area where it happened and we also pause and look to see that the same opportunity is avoided across the board. Just because it happened in one area, doesn't mean it can't happen in another area away from even that service or department. So we communicate lessons learned...” [large, urban, teaching hospital]

Many participants highlighted the importance of offering peer support. A director who provides support as part of her role mentioned:

“... [Receiving support from] people with the same discipline or someone who is doing the same kind of job, they understand the stressors of that job. They understand you're taking care of several patients and they're busy. There is a lot of stress involved—making sure I have the right medicine for the right patient.” [small, rural, non-teaching hospital]

Also, another director who oversees patient safety and accreditation at a medium-sized, urban, non-teaching hospital said:

“So for my peers to stand beside me and provide me with the support, where I know they don't think I am some type of ax-murder. That this was a terrible and unintentional event. I think that's what employees are looking for the most.”

Another patient safety director at a small, rural, non-teaching hospital indicated:

“Like any other event, I know for peer groups who go through similar situations, they are about one of the best support structures there are...I know within the last year a nurse made a med error, and there were no harmful effects to the patient. It was her first error in her career. And another nurse who had heard about the error came to her in the hallway and said, 'I heard about the error. I don't want you to worry. I know you are a great nurse. And I want you to know this happened to me when I was 3 years into my nursing career, and one thing is that you learn from it. I hope you learned about it, so it does not happen again. And she helped her through the first several days when she was feeling really, really bad about herself. Nurses are only human.’”

A director of risk management and patient safety who works at a medium, urban, teaching hospital also advocated for peer support within the context of developing a second victim team:

“... You would get different individuals--certainly individuals who have been identified by the organization as patient safety champions. I believe that there is a lot of information out there that is training for those individuals.”

The willingness of employees to access this support would depend on the individual and the type of support they feel comfortable accessing. Having the option of being anonymous when seeking support would also be reassuring to staff.

III. ORGANIZATIONAL SUPPORT FOR PATIENT SAFETY LEADERS:

Participants mentioned that since they were constantly being exposed to and were dealing with tragic events, they themselves often felt like second victims. One participant mentioned:

“... As risk managers, a lot of times we are affected by events that occur, even if we weren't directly involved. As you know the nature of the business can be very, very stressing. So I know that in our position that sometimes we have exercises or do different things for us to kind of de-stress.” [large, urban, teaching hospital]

A patient safety officer also expressed the same concern:

“Who provides support to us? And we are all licensed individuals, and we feel the pain and the stress. We might not be the ones involved directly in the event or sentinel event, but we feel the stress and frustration that goes on across the board... We also feel that pain.” [large, urban, teaching hospital]

Serving in their administrative roles as patient safety officers, managers, directors, or executives, these participants indicated that they, too, would benefit from organizational support. Some participants indicated that they would like to have access to a support program that includes similar features and services to the one they had described earlier for the second victim support program. Most importantly, participants indicated that supporting the caregivers, having someone to talk to, getting time to reflect on the incident, and having executive leadership or supervisor support are support mechanisms that can allow them to cope with their emotions after they have been facilitating an RCA or managing an adverse event from an administrative role.

Participants have found that one of the ways they can cope is to support the second victims who were directly involved in the event. One of the reasons is that they realized the staff involved were more impacted by the event than someone who was listening to the facts of the story. Other participants were reminded of situations when they were frontline care providers and felt like second victims. One patient safety officer who also oversees risk management shared her experience with being a second victim:

“I have been the second victim. And I had no support whatsoever... And it would have been very helpful if in the course of that evening, that the nursing supervisor had turned to me and said, ‘... this has to be very, very difficult. Can I get someone for you to talk with?’ It would have been helpful if I had given a phone number to call to talk to somebody. It would have been helpful if a clinical incidence stress debriefing would have been held within 24 hours after the event. None of that happened. Whereas I was there for a lot of staff who were crying and very, very distressed. And I was there as their support person, but no one recognized the need for me. I will tell you that even though it has been over 10 years since this incident, it still makes me cry. And I have talked about it, and I have found

myself afterwards. But it is a night of my nursing career that I will never forget.” [small, urban, non-teaching hospital]

Another risk manager emphasized the importance of supporting second victims and how it impacts her in a positive way:

“..it’s wonderful to support people because you can see that the different cases where we were involved that this can make or break someone's career. And chances are if you don't support them, the nurse can leave the profession forever.” [large, urban, non-teaching hospital]

Many participants mentioned the value of peer support. One participant indicated that their team holds a peer group meeting every week to discuss difficult cases and provide empathetic support to each other. A patient safety manager from a medium-sized, urban, teaching hospital mentioned:

“A team would have been really helpful. While I was trying to focus on that event, someone may be supporting me to support others. I needed more because I was just as shaken up like everyone else.”

A patient safety officer shared her story of how she received support from her peers and how it benefited her:

“I talked...I talked to other nurses... The fact that they listened, that they were non-judgmental... It was so tragic, and it was so sad....and they gave me the opportunity to cry.” [small, urban, non-teaching hospital]

A patient safety director at a large, urban, teaching hospital believed that she would prefer to access a peer support program rather than comprehensive counseling:

“Peer support because it has less stigma than going for psychiatric evaluation. In my own career, I think that I might have been more receptive to an unknown peer than a known peer.”

A manager who oversees regulatory and accreditation at a large, rural, non-teaching hospital also mentioned the importance of talking to a peer within the hospital:

“Just having a conversation with someone in the organization who could reassure me and listen to me. 1:1 would be most helpful with someone in the organization.” [medium, urban, teaching]

Other participants mentioned that they would like to have time away from the office or time to reflect on the event. A nurse manager shared her experience and said:

“I think in general, health care providers we continue on and push things aside. [an incident took place].. And in 24 hours we just carried on... We got somewhat support, and then we carried on. We had an EAP. It would have been really nice to just stop a minute, focus on not the event...but just the response of how everyone was feeling. This stayed with many people 5-6 years later.” [medium-sized, urban, teaching hospital]

Similarly, a director who oversees patient safety and risk also mentioned the importance of peer support and having time off after the incident occurred:

“... it would be nice to know that there is someone to talk to who is a safe person. Or if there is a situation where I really would want to take some time off. Not to be put right back into the situation that has caused the problem. I would want to know that I have the support of my manager, my colleagues, my peers...” [large, urban, teaching hospital]

Finally, many participants mentioned that they would like to receive support from executive leadership or from their direct supervisor. A director who oversees nursing and patient safety at a medium, urban, teaching hospital said:

“I would need to know that there is leadership support and that there is a non-punitive approach to error. And that also—for sure—an

organizational culture of trust.”

An executive from a medium, urban, non-teaching hospital also conveyed the importance of leadership support:

“I think it would be beneficial for my leader to approach me and offer that here and offer that guidance and direction. I think the ability to individualize is what would be helpful.”

During the interviews, some participants offered recommendations for beneficial features and services in a potential second victim support programs. One executive representing a small, urban, non-teaching hospital said:

“If [our state patient safety center] has a team of individuals and we can call them, and we have doctors sometimes that need assistance, they never take us up. If I had a hotline number I can call for crying upset nurses and doctors to know exactly what to say and if they can set up follow up meetings, then that would be great if we didn’t have to pay. Maybe [our state hospital association] can do an initial emergency intervention and hospitals pay for follow up...”

A director of patient safety also highlighted the importance of easy access to a support program as well as ongoing peer support:

“Teams would be multidisciplinary. People who have been employees of good record for a number of years would be part of it. Or people who have been through these types of events in the past--have past experiences. Ongoing support. A buddy system or something like that for a while until the nurse can feel that she can back down a little bit. If there was a support system at the individual hospital level, perhaps they could do a peer-to-peer buddy system. Kind of like an alcoholic, like they go to AA... they usually have one person to call if they felt they would back slide... So there would be one particular nurse who would always be available and be there to talk to them at any time.” [small, rural, non-teaching hospital]

One executive eloquently summarized her opinion of how a support program would look

like:

“... I would want something to be on site, so it is available to me when I'm coming to work... Of course I would want the information to be confidential as well. I would like to have it so that it can be provided to me as an individual as well as a group of people--that would be very good. I think all of those things, and of course I would want a non-punitive, just culture approach. And I would want those providers to know and understand that to help me cope with the circumstances of the situation.”
[medium, urban, non-teaching hospital]

IV. SECOND VICTIM SUPPORT PROGRAMS IN MARYLAND

Participants varied in their responses when asked if their hospital offered an organizational support program for staff to access following adverse events.

Approximately 70% of the hospitals did not offer a program, whereas other hospitals were either developing a program (13.2%) or had an existing program (15.8%):

The following section provides an overview of the six current organizational second victim support programs in the state of Maryland. [Summarize the quantitative results here]

These programs are offered in seven hospitals in the state of Maryland; one of the programs had expanded its services in two hospitals. (Table II) All of the programs are offered in urban hospitals. Four out of the seven hospitals are categorized as large, teaching hospitals, whereas the remaining hospitals are small, non-teaching hospitals. The programs have been in existence for at least 2 years, with the most established program being in existence for over 10 years. Although there are many similarities

across the programs, they vary in their structure as well as the mechanisms and situations in which support is accessed.

The programs had some similarities in terms of the team members who were providing support. All of the programs had social workers who supported second victims. Clinical providers offering support were in 83.3% of the programs. Approximately 66.7% of the programs included clergy, peers trained in providing support, and professional counselors or mental health professionals. Employee assistance professionals were in 50% of the programs; whereas risk managers supported 33.3% of the programs. Only one program had representation from the human resources department. In contrast to the small, non-teaching hospitals, the large, teaching hospitals included professional counselors or mental health professionals.

Regardless of size and teaching status, all of the programs offered both group and individual support. The mechanisms by which support was designed to be confidential differed across the programs. All of the programs were protected when EAP professionals offered support. In 83.3% of the programs, information was not shared with the employer when peers provided support. The next most frequent mechanisms for assuring confidential were: support being adopted as part of a hospital-based Quality Improvement Program, protected by provider-patient relationship when a licensed healthcare provider was involved, and protected by attorney-client privilege with involvement of defense counsel. Two of the programs were protected by work product

privilege through a professional liability insurer provider support program. Additionally, one program was adopted as part of a Coordinated Quality Improvement Program (CQIP) approved by the Department of Health. The longest standing program (>10 years) included all of these mechanisms to protect confidentiality. Two programs mentioned additional confidentiality mechanisms. These included: data on the second victim was not collected, and confidentiality was not protected when immediate harm was posed to self or others.

All of the programs received facility funding to support their programs. Approximately 50% of the programs were additionally supported by volunteer efforts from existing personnel. In addition to receiving facility funding and support from existing staff, 33.3% of the programs had additional sources of funding: the hospital's EAP employee benefits in one case, and professional liability insurance coverage in another.

The programs differed in the situations and mechanisms by which support was accessed. All of the programs were activated if the second victim requested support. The second most frequent situation in which the program was accessed was if the risk manager or other leader felt it was necessary for the program to offer support. Approximately 33.3% of the programs offered support when the healthcare provider was named as a defendant in a lawsuit.

The mechanisms by which support was accessed also varied across the programs. The most frequent options for accessing support across the programs in each of the hospitals included: self-referral (83.3%), department leader/unit manager referral (83.3%), or risk manager referral (83.3%). This was followed by telephone/pager hotline (50%), impromptu peer referral (33.3%), and active surveillance by peers trained to look for distressed caregivers (33.3%). The longest standing support program included all of these mechanisms for the program to be accessed and also had a second victim program that was accessed through a patient safety/error reporting system; the patient safety/error reporting system referral comprised 16.7% of the programs.

Participants mentioned that there were barriers to accessing the programs at their hospitals. The two most frequent barriers were taking time away from work to access the support and concern that the conversation between the second victim and the employee who provided support would not be kept confidential. The second most frequent barrier was that the second victim would be concerned that their support history would be placed in their permanent employee record. Other barriers mentioned included: concern that accepting emotional support might affect malpractice premium costs, that second victims might be negatively judged by colleagues, and that support will not be effective in meeting the second victims' needs. Two participants mentioned that staffs' lack of awareness on the purpose of the second victim support program was a barrier. Of the two programs that were offered in small, non-teaching hospitals, one identified five barriers and the other none.

When asked to provide recommendations for mitigating these barriers, the most frequent response was to increase awareness of the program and market program services. The second was to encourage staff to access the program. One suggestion was also to arrange for staff to take time away from work in order to access the program and take advantage of the support. Participants also mentioned the importance of leadership in communicating the program's mission and message. Additional opportunities for improvement mentioned included dedicating a smaller team whose sole responsibility is to lead and support the second victim program. It was suggested that it would be important for team members to attend debriefings and observe the root-cause-analysis process with staff in order to identify individuals who are in need of support.

DISCUSSION

The existing literature on second victim support programs is generally limited to descriptions of specific hospitals that have developed and implemented programs. Little is known about what are the most effective and beneficial features that can be used in various settings. In addition, the role of EAP in supporting second victims has not been explored previously. Although some authors have recognized the importance of organizational support for second victims, there has been little exploration of supporting other health care providers or patient safety leaders who were tangentially involved in the event.

This study focused on exploring the role of EAP in supporting second victims, describing the features and services for an ideal support program, and assessing the need for support for patient safety leaders. It also provides an overview of the existing organizational support programs in Maryland. We found that although EAP services were near-universal, they were perceived as not meeting all of the needs of health care workers. The effectiveness of EAP was not being evaluated, but there were several desirable features for an ideal system to support second victims. There is a handful of existing support systems that already provide some of the desired features.

Employee assistance programs were offered by all of the organizations in our study, with the exception of one institution. Participants believed that their EAPs offered valuable services to staff; however, they articulated that there continued to be an unmet need in supporting second victims. Some of these include lack of timeliness of services, lack of 24 hour 7 days a week availability, inconvenient physical location of the program, and lack of awareness of the existence of an EAP. These findings were consistent across all hospitals regardless of size, teaching status, and geographic location. As a result, institutions offered supplemental resources, such as pastoral care services or a grief support counselors. In addition to these access barriers, participants indicated that their staff were either unaware of the existence of an EAP in their hospital or thought that EAP services were only offered for those who are experiencing personal issues or have substance abuse problems that impact their job performance. Published literature

indicates a lack of standardization in the training of professionals who offer support to employees as well as those who are leading the EAPs¹⁴³. Future studies could focus on EAP programs offered in hospital settings and ways to expand or improve their role in supporting second victims.

All of the participants indicated that they did not receive feedback from EAP or anyone else about the effectiveness of second victim services. One possible reason is that EAP is structured to be confidential and is overseen by Human Resources rather than the hospital quality management or patient safety. Regardless, it remains unclear how helpful these services are to second victims in particular. There is a gap in the EAP literature on the effectiveness of EAP models and services that are offered within organizations, and no studies of EAP services in hospital settings¹⁴³. Additional studies should be conducted to develop and apply evaluation tools to measure the effectiveness of EAP. A possible solution to the lack of data due to the confidentiality of EAP services might be to seek feedback from second victims themselves.

Participants described several desirable features and services of an idealized organizational second victim support program. The program needs to be well-advertised and well-articulated to staff. Confidentiality and anonymity in seeking services should be communicated to staff. This is significant as many of the staff do not currently access EAP services because they are either unaware of the services or are unsure of when to contact EAP. Additionally, many of the participants mentioned that staff need someone

to talk to about the event and be easily accessible and available 24 hours, 7 days a week; this is critical as many events happen on the weekends or during the night shift when a manager is not present. Participants emphasized the importance of peer support as an effective strategy to help second victims cope. This is also consistent with other studies. It is essential to establishing a non-punitive, just culture within the organization where second victims are able to speak up. A just culture will also allow second victims to be involved in identifying system defects and suggest strategies to improve the current process. It will allow staff to gain professional and personal reassurance, so that they can continue to provide quality care. This is consistent with other studies that emphasize the importance of open communication and just culture regarding medical errors and incident reports¹⁴⁴.

Interestingly, study participants saw themselves in role of second victims since they frequently provide support to staff, even when they were not directly involved in patient care. They indicated that supporting the second victims who were directly involved in the event, talking to a peer, having time to reflect on the incident and how it was handled, and receiving support from their executive or direct supervisor were all helpful strategies for these participants. This largely unreported impact has implications for expanding the current second victim definition. Many of the studies on the impact of errors on healthcare providers focus on disclosure or supporting the caregiver as opposed to addressing the needs of patient safety leaders, risk managers or quality directors, who can also be impacted by patient adverse events.

Even though organizations are aware of the extent of the second victim problem in their institutions, very few hospitals have established second victim programs. Currently, there are six programs in the state of Maryland that offer second victim support in seven hospitals—four in large, teaching institutions and three in small, non-teaching hospitals. Even though these programs vary in structure and how they are accessed by staff, they had common features. Some of these include peer support, importance of confidentiality, offering both group and individual support, and ways in which support is accessed or provided. This reflects published descriptions of second victim programs cited in the literature, such as the forYOU program and MITSS^{137, 145}. The most frequently reported barriers to access and availability of services could be mitigated by further increasing awareness of the program and encouraging staff to access the program. It was apparent that the longest standing program included a comprehensive confidentiality and designed the program so that it was easily accessible to staff. There was some similarity in participants' responses across the different hospital types: the large, teaching hospitals involved professional counselors or mental health professionals in their support program; whereas the small, non-teaching hospitals did not.

Participants who represented organizations without support, stated that they were unaware of how to support second victims and how to develop and implement a formal second victim support structure¹⁴⁶. The implication for organizations is to either re-evaluate the way in which their employee assistance programs provide support or to offer

additional support services to their staff. Results of this study will help inform hospitals about the availability of support programs in Maryland and also beneficial features and services for the development of a potential program. Additionally, results of this study can be used to inform future research.

LIMITATIONS

This study had several limitations. The first was that the questionnaire has not been validated, including both questions derived from the White survey and those newly developed for the project. However, the items have good face validity, and there is no comparable survey. A second limitation is that a single individual generated and coded the interview transcripts, which may have created bias. A third limitation is the small number of existing organizational support programs offered in Maryland. However, these represent the universe of existing programs. Finally, we surveyed patient safety officers rather than frontline providers, which may have yielded different information, particularly about barriers to use. Future studies might include a broader sample of respondents.

CONCLUSIONS

It is apparent that there is an unmet need for organizational second victim support programs. In order for caregivers to provide quality and safe care, it is also important to

support them during and after adverse patient events. Attention should be given to strengthen or establish support systems for health care workers in hospital settings, as some organizations have done. This study implications for reexamining the role of EAPs in providing second victim support, as well as the development of more timely and targeted support services. Future research should focus on second victims' perceptions of organizational support after the occurrence of an adverse event. This will assist researchers and organizational leaders identify the needs of second victims. Additional research should address organizational culture and its impact on health care workers willingness to speak up and to use support services. All of this is part of improving how organizations manage the reporting, investigation, and follow-up of patient safety events.

TABLE VIII: SECOND VICTIM SUPPORT PROGRAMS IN MARYLAND

Second Victim Support Programs in Maryland Hospitals (n=38)				n (%)			
Existing support programs				6 (15.8)			
Currently developing a support program				5 (13.2)			
Not currently offering a program/ Do not know				27 (71.1)			
Second Victim Support Programs in Maryland (n=6)							
Question/Domain	Hospital A: large, urban, teaching hospital	Hospital B*: small, urban, non-teaching hospital	Hospital C*: small, urban, non-teaching hospital	Hospital D: small, urban, non- teaching hospital	Hospital E: large, urban, teaching hospital	Hospital F: large, urban, teaching hospital	Hospital G: large, urban, teaching hospital
<u>STRUCTURE</u>							
Name of Program							
	Immediate Debriefing Team	Critical Incidence Stress/ Support Team	Critical Incidence Stress/ Support Team	CISM	COPE	RISE	Outpatient Psychiatry support team
Number of Years in Existence							
	over 10 years	5-6 years	5-6 years	2 years	2 years	2-3 years	over 3 years
Team members who provide support							

Clinical providers (i.e. physicians, nurses, psychiatrists, etc.)	X			X	X	X	X
Professional counselors or mental health professionals	X				X	X	X
Social workers	X	X	X	X	X	X	X
Clergy		X	X	X	X	X	
Peers trained in providing support		X	X	X	X	X	
Employee assistance programs (EAP)				X	X	X	
Human resources or personnel office				X			
Risk managers				X		X	
Group and/or individual support							
Group Support	X	X	X	X	X	X	X
Individual Support	X	X	X	X	X	X	X
Mechanisms by which support is designed to be confidential							
Adopted as part of a Coordinated Quality Improvement Program (CQIP) approved by the Department of Health	X						
Adopted as part of a hospital-based Quality Improvement Program	X					X	X
Protected when provided by Employee Assistance Program (EAP)	X	X	X	X	X	X	X
Protected by provider-patient relationship when a licensed healthcare provider is involved	X	X	X			X	
Protected by work product privilege through a professional liability insurer provider support program	X	X	X				
Protected by attorney-client privilege with involvement of defense counsel	X				X	X	

Not shared with the employer when support is provided by peers	X	X	X	X	X	X	
Other: Data on staff member is not collected					X		
Other: Confidentiality is not protected when someone poses harm to self or others							X
Funding							
Facility funding	X	X	X	X	X	X	X
Volunteer effort from existing personnel	X	X	X			X	
Part of professional liability insurance coverage	X						
Funded as part of EAP employee benefits		X	X				
ACCESS							
Situations in which support is accessed & provided							
If the caregiver requests it	X	X	X	X	X	X	X
If the caregiver is named as a defendant in a lawsuit	X	X	X				
If a risk manager or other leader feels it is warranted	X	X	X	X		X	
If a caregiver's responses to a screening instrument used to detect distress indicate that it is warranted	X						
If a caregiver is involved in an adverse event, regardless of whether or not they request support or appear to need it	X						

Other: If anyone detects the need for the team to be called				X			
Other: If the shift coordinator or HR requests it				X			
Other: If the manager requests it						X	X
Mechanisms by which support is accessed							
Self-referral	X	X	X	X	X	X	
Telephone or pager hotline	X			X		X	
Impromptu peer referral	X	X	X				
Active surveillance by peers trained to look for distressed caregivers	X			X			
Department leader or unit manager referral	X	X	X	X		X	X
Risk manager referral	X	X	X	X	X	X	
Patient safety/error reporting systems	X						
Barriers to accessing support							
Taking time away from work	X	X	X			X	
Concern that it won't be kept confidential	X	X	X				X
Concern that their support history would be placed in their permanent record	X	X	X				
Concern that accepting emotional support might affect malpractice premium costs						X	
Concern that they might be negatively judged by colleagues		X	X			X	
Belief that support will not be effective		X	X				
Don't know				X			
Other: lack of education					X		
Other: not knowing about the program						X	

Opportunities for Improvement	encourage staff to access program	team would attend RCAs to identify folks in need of support	team would attend RCAs to identify folks in need of support	increase staff access to the program	increase awareness of program	increase program marketing	dedicate a smaller team only for this program
	arrange for staff to take time away from unit to access program	increase program marketing	increase program marketing				
	leadership engagement in promoting the program	effectively communicate program's mission and message	effectively communicate program's mission and message				

* Hospitals B & C share the same program

This chapter provides a summary of the findings from the three manuscripts, lists limitations of the study, and presents implications for policy and future research.

SUMMARY OF FINDINGS

This study was undertaken to fill a gap in the current literature on the second victim and support programs for health care workers traumatized by adverse patient related events. We also aimed to provide information on the perspective of patient safety leaders for hospitals in Maryland on the extent of the second victim problem in their organizations, and the need to develop an organizational support program.

This dissertation had two main specific aims: (1) to review the literature on second victims, psychological trauma, and support interventions to treat second victims, and (2) to assess the perceptions of patient safety officers of the extent of the second victim problem in their organization, and the extent of support services available to second victims. Specific aim 1 was addressed in the literature review section of the dissertation. For aim 2, we designed a mixed-methods study that included data from 38 acute care hospitals in the state of Maryland during a 3-month time period. Information was obtained from these participants through interviews and questionnaires. Overall, the findings indicate that the second victim problem is prevalent across all hospitals in the state, regardless of sizes, teaching status, and urban/rural status. Given the general lack of evidence on how to approach this issue, this dissertation offers suggestions on potentially useful features of second victim programs. Findings from the literature review and the two manuscripts were as follows:

Literature Review

There were several important findings in the literature that addressed study aim #1. This section provided an overview of the second victim literature as well as the literature on acute stress reaction and post-traumatic stress disorder, the management and treatment of psychological care, and support systems in hospital and non-hospital settings. Although the term ‘second victim’ was introduced approximately 14 years ago, there continues to be a gap in the literature on the prevalence of second victims. The impact of unanticipated adverse events and trauma on second victims was described in light of clinical conditions (acute stress reaction and post-traumatic stress disorder symptoms) and stress reactions. Additionally, the impact of errors on the healthcare team and the organization was also explored.

The literature review described the Baldrige framework, which was used as a conceptual foundation to explore the aims of this study. Another finding of the literature review is an overview of current support structures offered to the hospital workforce and others who experience psychological trauma. First, there was a detailed description of the second victim programs that are offered to hospital workforce across the country. The organizations that offer these programs include, Medically Induced Trauma Support Services, University of Missouri, Kaiser Permanente Program, Boston Children’s Hospital, Brigham and Women’s Hospital, and the Johns Hopkins Hospital. Second, the literature review provided an overview of support programs that are offered to individuals who experience psychological trauma external to the hospital setting; these include

Psychological First Aid (PFA), Critical Incident Stress Management (CISM), and resilience support programs in the military.

Finally, policy implications for establishing second victim support programs were also introduced. The Joint Commission is currently revising its Sentinel Event Policy to encourage organizations to identify and address the needs of second victims.

Additionally, the literature review also referenced the Institute of Medicine's (IOM) "To Err Is Human" report as it relates to reducing patient harm and designing safer systems. Thus, the findings in the IOM report provide an opportunity to understand the scope of the second victim problem in healthcare.

Manuscript #1

The first manuscript addressed study aim #2. The purpose of this manuscript was to assess the extent of the second victim problem, the availability of emotional support services, and the need for organizational second victim support programs among acute care healthcare institutions in the State of Maryland. The most striking finding was that virtually all of the patient safety leaders and their executives were aware that the second victim problem exists in their organization. Although participants varied in their perceptions of whether a second victim program would be helpful within their institution, all agreed that in general, hospitals should offer organizational support programs for their own staff that become second victims. Regardless of efforts by organizations to promote a 'just culture' in responding to events, they reported continued stigma associated with: (1) speaking up during a root-cause-analysis and (2) the willingness of employees to

access support, even if it was offered. This paper only addressed perceptions of need and how those needs were being met from the perspective of patient safety officers and hospital executives. Future research should assess the need for second victim programs from the perspective of second victims themselves, and explore ways to overcome the stigma associated with accessing the support.

Manuscript #2

The second manuscript also addressed aim #2. This study described the extent to which organizational second victim support is perceived as desirable by acute care hospitals in Maryland, and to identify existing second victim support programs. This study was based on the same interview with hospital patient safety leaders. The results indicated that although hospitals offered employee assistance services (EAP) to their employees, there was a failure to provide an effective way to measure effectiveness of these services. There was a perceived gap in the services that were being provided including: timeliness of intervention, lack of EAP staffs' clinical experience in relating to clinical providers, and inconvenient physical location of EAP. Additionally, there was an apparent need for peer support for both the second victim as well as for the individuals providing support to the second victim.

A total of six second victim support programs were described that are offered in Maryland hospitals. Brief descriptions of these programs were provided in this manuscript. The results suggested that organizations should either re-evaluate the way in which their EAPs provide support or offer additional support services to their staff.

Future research should focus on the role of employee assistance programs in offering support to second victims and identifying beneficial services from existing support programs that might be incorporated into an ideal/standard second victim support program for hospitals.

LIMITATIONS

This project, and the resulting papers had several limitations. Some of this is based on existing gaps in the published second victim literature. Although a few studies confirmed that the prevalence of second victims, reported ranges varied from 10-50%. This large range was also obtained from convenient rather than representative sample of the larger healthcare population. Second, literature on emotional support and debriefing for disaster relief workers and those in combat was used as a basis for developing the work at Johns Hopkins and elsewhere. It is not clear how generalizable the effectiveness of recommended support strategies are likely to be for clinicians in hospitals. Since the term ‘second victim’ was coined in 2000, there have been a few studies that focused on addressing the concept of second victims, and there have been a few institutions that have developed their second victim support programs and published program results.

A limitation of the study itself is that it focused on obtaining perceptions of a specific target population—patient safety representatives in the state of Maryland, as well as peer responders from the Johns Hopkins Hospital RISE program. As a result, responses to the interview questionnaire may not be representative of the experience and perceptions of all health care workers, particularly second victims themselves. Future studies should

include the perspective of populations that are involved in unanticipated adverse events, such as second victims or even senior executives—as both groups have different perspectives and insights on the benefits and feasibility of second victim support programs. Future studies should also be conducted in different states or countries.

In addition, the findings generated from this study include a relatively small sample size, especially those from the evaluations by RISE peer responders, which may impact generalizability of the results. Given that the interviews with patient safety officers were audio recorded, it is possible that there may have been a social acceptability bias, and respondents may have provided more positive responses in comparison to what they felt or experienced. Discussions of challenges and barriers to developing a support program or providing support to second victims may have been limited in nature, given the sensitivity of expressing these concerns. In addition, the patient safety representatives in the Maryland survey had various backgrounds and roles within the organization, which could have led to some of the variability of responses. For instance, a range of participants included risk managers, patient safety officers, senior executives, and quality directors.

An additional limitation is the lack of a validated interview questionnaire used to measure the prevalence of second victims and the need for developing peer support programs.

These limitations may affect the validity of the findings from these manuscripts.

However, they offer an opportunity to inform future research that can address the needs of a different target audience or setting. Given that the questionnaires were utilized in the

State of Maryland, future studies can focus on refining testing the reliability and validity of the questionnaires that were demonstrated in this study.

IMPLICATIONS FOR FUTURE WORK

This study has implications for future work including public health and hospital practice, public health policy recommendations, and future research.

A) Public Health and Hospital Practice

This study has implications for practice on both the system level and the level of individual behavior, since it focuses on strengthening health system delivery. From the systems perspective, developing second victim support programs allows organizations to address second victim needs, so that healthcare providers are able to provide quality patient care. When implemented and supported by organizational leadership, these programs promote and enhance a culture of safety, as they offer an opportunity for staff to be comfortable in speaking up and acknowledging their needs after experiencing a traumatic event. It is critical for health care organization to address work environment factors that impact patient care, such as just culture, teamwork, and communication. Furthermore, encouraging second victims to identify and address system defects after an event has taken place will reinforce the organization's commitment to establishing a just culture. Rather than duplicating efforts in providing workforce support, second victim programs can collaborate with EAPs to offer the most comprehensive coping strategies for healthcare providers to utilize.

Implementing a second victim program also has implications at the individual behavior level. Second victim support programs will allow healthcare providers to address stressful and traumatic symptoms early on to decrease the likelihood of developing PTSD over time. In accessing available organizational support, second victims will be engaged in understanding and acknowledging their own psychological and social support needs. It will also motivate them to provide appropriate peer support to their colleagues that experience adverse patient events. It should also engage them to make decisions and change care processes to decrease the incidence of medical errors. Importantly, an effective and sustainable second victim program will build trust between healthcare providers and organizational leadership as organizational resources are being invested to address second victim related issues.

The Baldrige framework provided a conceptual foundation for this research study as it relates to both the “Leadership” and “Workforce” domains. Implementing a second victim program will help senior executives create an environment that cultivates supportive open communication among healthcare providers. Leaders will also be able to instill and re-emphasize just culture and learning from system defects to improve patient care and patient outcomes.

Focusing on the “Workforce” domain of the Baldrige framework provided an opportunity to assess how the second victim support structures will assist healthcare providers in effectively coping with their emotions. Asking patient safety representatives on their

perceptions of how employee assistance programs can support providers was also a critical component of Baldrige's workforce focus domain. Overall, establishing a support structure for second victims will further enhance healthcare provider performance in offering quality care.

Furthermore, the results of this study may motivate organizations to invest resources to develop support programs for healthcare providers to access. In an effort to establish a just culture within an organization, an essential components is to encourage providers to speak up about system defects and the impact medical errors have on them, their team, and patient care. Organization policies can protect second victims by offering confidential services and beneficial strategies for second victims to adopt before returning to work. Additionally, organizational policies that focus on the healthcare provider in the workplace, such as just culture and adverse event reporting policies, can be expanded to include the importance of addressing second victims' needs. An additional recommendation for organizations is to require existing EAPs to collaborate with second victim programs to maximize the opportunity for the hospital to address second victim issues.

B) Public Health Policy

Since there has been growing attention to improve healthcare delivery systems and to handle patients and families who are harmed after a medical error, this study has implications for developing and implementing higher level health policies that encourage second victim support. The Joint Commission's commitment to enhancing patient safety

culture within organizations is evident in their revision of the Sentinel Event Policy. The new policy will expand to include certain harm events to staff, visitors, or vendors that occur when they are in the healthcare organization. Furthermore, including the acknowledgement of second victims' needs in this policy conveys the Joint Commission's commitment to supporting clinicians in a high reliability environment. Our findings should encourage The Joint Commission and other regulatory agencies to emphasize the importance of offering support to healthcare providers who are experiencing trauma after an unanticipated adverse event. Perhaps a future requirement for accredited hospitals is to acknowledge the second victim problem, commit to supporting their healthcare providers and offer an organizational second victim support program

C) Future Research

These findings also have implications for future research. The current gaps in the second victim literature offers opportunities to explore future research in quantifying the prevalence of second victims. Since the term 'second victim' was coined in the year 2000, only a few studies have cited the prevalence of second victims in a specific hospital setting. Future research should estimate the prevalence of second victims from national studies that have been published, including the Institute of Medicine's "To Err Is Human" Report.

Additional research should focus on various target audiences in different settings. For instance, future areas of research can include collecting data on second victims

themselves since they are the individuals who have witnessed and are closely impacted by the event after the patients and families. As the end users of a second victim program, second victims will be more likely to be able to report on the accessibility and barriers to using a support program. They will also be able to identify strengths and opportunities for program improvement. Future projects should explore the perspectives of second victims from different professions, since physicians may have different perspectives and needs than nurses or pharmacists, and are currently underrepresented in the literature.

Additionally, future research can include perceptions of senior leadership as their perspectives might be different than that of patient safety representatives and second victims. Developing a second victim program requires financial and structural organizational resources, as well as leadership support to champion this type of work. Implementing a second victim program can ultimately lead to a shift in the organization's culture where staff are more likely to trust the organization in supporting them following the occurrence of an adverse event. Visible senior leadership commitment can also assist in sustaining a second victim support program after it has been implemented.

Future research is needed to address influencing factors, such as organizational resources, priorities, culture, transparency, and funding, which may impact an organization's willingness to adopt a second victim support program. Since many of these factors can influence an individual's ability to report an event and speak up, it will be beneficial to include these factors in future work.

Furthermore, future research can focus on embedding second victim concepts and terms into existing patient safety infrastructure. For instance, including a few questions in an organizational employee satisfaction survey or patient safety culture survey may assist in collecting data on second victims' perceptions in accessing, maintaining, or evaluating organizational support. Data might be collected on the following concepts:

manager/supervisor support following an event, team support and communication following an event, confidence in speaking up, confidence in accessing support.

Focusing on organizational culture, particularly creating a nonjudgmental and blame-free environment, is key given the stigma attached to accessing organizational support. This will also reinforce leadership commitment to sustaining efforts to support second victims.

Future efforts might also include linking an organizational second victim support program to the institution's incident reporting system. For instance, when an employee reports an event, an alert can be sent to him/her prior to submitting the event in the system, so that they can access the second victim support as needed. In other instances, the second victim support program can be notified to reach out to staff on that particular unit after the event has been submitted.

Future work on this issue can also focus on developing a roadmap or template for organizations to utilize as they consider creating their own second victim program. This will help reduce the burden of developing new material or reinventing the wheel. It will also allow users to effectively allocate their resources given the limitations on current funding and lack of organizational resources in most organizations.

CONCLUSIONS

In conclusion, there is an apparent need to develop second victim support programs to assist healthcare providers who are emotionally traumatized by unanticipated adverse events. The two manuscripts in this dissertation have implications for organizations - to develop peer support program and for regulators to encourage initiatives that will allow organizations to prioritize the implementation of such a program. The findings in this study provide a framework for organizations to acknowledge second victims' needs and implement their own second victim support program.

This research gives rise to a future research agenda that emphasizes the importance of offering organizational support programs for healthcare providers. Future research should focus on further developing and validating measurement tools that will assess program effectiveness and outcomes as well as the program's impact on organizational culture and other hospital-wide patient safety indicators. Future work should also include obtaining perceptions of second victims on accessing organizational support as well as developing an ideal support program that will address the needs of second victims, and in so doing improve the quality of health care.

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CURRICULUM VITEA

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PERSONAL INFORMATION

Nationality: Saudi Arabian

Place of Birth: Madinah, Saudi Arabia

Date of Birth: April 23, 1985

EDUCATION

Doctorate of Public Health, Health Care Management and LeadershipMay 2014

Johns Hopkins University: Bloomberg School of Public Health, Baltimore, MD

Dissertation Topic: Second Victims & Peer Support Programs in Maryland Hospitals: A Study of Perceived Need for Organizational Leaders

Advisor: Albert Wu, MD, MPH, FACP

GPA: 3.60/4.0

Masters of Science, Health Systems Administration.....May 2009

Georgetown University: School of Nursing and Health Studies, Washington D.C.

Practicum /Thesis: Quality Improvement—Organizational Change and Development

GPA: 3.76/4.0 Honors: Upsilon Phi Delta Honor Society

Bachelor of Science, BiologyMay 2007

George Mason University: College of Science, Fairfax, VA

PROFESSIONAL EXPERIENCE

Consultant, Service Delivery & SafetyAugust 2014-present

World Health Organization, Geneva, Switzerland

- Responsible for management and coordination activities to support the response to the Ebola Virus Disease (EVD) Outbreak in West Africa

Intern, Service Delivery & SafetyJune 2014-August 2014

World Health Organization, Geneva, Switzerland

Partnerships for Patient Safety in the Eastern Mediterranean Region (EMRO)

- Develop strategy to adapt the African Partnership for Patient Safety (APPS) model for 21 countries in EMRO region
- Collaborate with EMRO regional leadership to develop framework for patient safety partnerships
- Draft project report (Project Initiation Document) to include scope of partnerships and technical areas of interest

Health Facility Assessment

- Synthesize information on facility level quality assessments in low and middle income countries
- Draft project report to emphasize the importance of aligning quality of care and health information systems

Project Manager International, Quality and Patient Safety January 2012-January 2014
Johns Hopkins Medicine Armstrong Institute for Patient Safety & Quality, Baltimore, MD

- Led international collaboration with the Armstrong Institute, Johns Hopkins International, and Abu Dhabi Health Services Company (SEHA)
- Supported the Principle Investigators in the development, oversight, implementation, and evaluation of international quality improvement and patient safety efforts
- Prepared technical reports to SEHA corporate on progress of project
- Utilized operational expertise & evidence from scientific literature including but not limited to patient safety projects
- Provided high-level evaluation, recommendations, & coordination of critical program planning
- Educated and provide guidance to SEHA leadership team and SEHA hospital teams on the importance of patient safety and use of evidence based guidelines

Senior Patient Safety Risk Management Specialist (Consultant) July 2011-September 2011
SEHA—Abu Dhabi Health Services Company, Abu Dhabi, UAE

- Advised leadership in effectively implementing patient safety as part of the overall corporate clinical quality mission
- Collaborated with SEHA's senior leadership on identifying a potential organizational patient safety structure at SEHA
- Advised on implementing a "Do Not Resuscitate" policy within the UAE based on current policies and best practices
- Assisted in the investigation of patient safety issues and made recommendations to improve patient safety
- Collaborated with SEHA entities in further developing patient safety initiatives and plans to effectively measure, monitor, and improve outcomes

Comprehensive Unit-Based Safety Program (CUSP) Coach January 2010-February 2014
Johns Hopkins Hospital, Baltimore, MD, USA

The CUSP program focuses on enhancing quality by addressing safety concerns on clinical units and creating a culture that improves system failures and not individual fault.

- Led projects that focus on empowering and educating staff on the use of quality improvement tools to make changes
- Created CUSP Safety Assessment Reports by compiling and analyzing handwritten staff surveys that focus on identifying patient safety issues
- Concentrated on decreasing and managing patient safety issues that would potentially lead to patient harm
- Encouraged team involvement in leading safety projects that will enhance patient care and reduce waste in the system
- Aligned interests of clinical team and patients with the Hopkins' mission and goals
- Fostered an environment and culture of safety for staff to learn from defects in patient care
- Supported the team in record keeping and facilitate monthly meetings
- Collaborated with organizational leaders to address specific patient safety concerns & solutions
- Mentored executive in his leadership role on the unit in implementing patient safety interventions
- Served as a planning committee member for Johns Hopkins Medicine Patient Safety Summit (1st, 2nd, 3rd, and 4th years)

Two-Way Pagers June 2010-April 2013

- Enhanced patient safety by improving communication among members of a health care team utilizing the results in the CUSP Safety Assessment Report
- Collaborated with a multidisciplinary focus group to develop and administer an assessment survey
- Analyzed survey results and educated the team on survey results
- Established methods and tools in which staff were able to monitor changes as a result of the survey feedback

Medication Dispensing..... October 2010-April 2013

- Addressed medication dispensing processes & protocols based on the CUSP Safety Assessment Report results
- Concentrated on improving quality of care by streamlining the medication dispensing processes upon discharge
- Evaluated the process of purchasing and implementing information technology into the care process
- Created a workflow diagram and process map for the current process, including roles and responsibilities
- Identified the current issues related to communication and role & responsibilities ambiguity for dispensing
- Developed a proposal and protocol for this new process that also includes roles and responsibilities
- Altered the current workflow process to include purchasing a medication label maker for multi-dose items

Patient Safety Lead for the “Second Victims” Work Group April 2010-Present
Johns Hopkins Hospital, Baltimore, MD, USA

“Second Victims” are healthcare providers who are involved with patient adverse events and who subsequently have difficulty coping with their emotions. Growing attention is being paid to making systems improvements to create safer health care. In contrast, there has been little attention to helping health care workers cope following adverse events.

- Serve as a safety subject matter expert in implementing safety-related policies, processes, and procedures
- Enhance quality improvement efforts by assisting the organization in providing care and support to the hospital staff
- Conduct literature review on second victims and prospective tools to be used in addressing this issue
- Collaborate with the Patient Safety Director in preparation for monthly meetings
- Provide program planning group with evidence-based quality improvement strategies on supporting caregivers
- Conduct an inventory of existing internal and external resources for second victims
- Raise awareness regarding the significant emotional impact that adverse events can have on caregivers
- Evaluate different strategies and models in addressing the issue of second victims

Survey Development & Administration..... April 2010-September 2010

- Led the data collection and evaluation processes to identify the magnitude of second victim issues within the Hopkins system
- Developed a cross sectional survey to assess the need for second victim interventions and the prevalence of the issue of “second victims” at Hopkins and to involve staff in developing a support program for the Hopkins infrastructure
- Administered a paper-based and online survey to 350 registrants of the session titled: “Healthcare Workers: the ‘Second Victims’ of Medical Errors” during the Johns Hopkins Medicine 1st Annual Patient Safety Summit
- Collected and analyzed the survey results, including quantitative and qualitative analysis

Second Victims Pilot Program in the Pediatric Department.....February 2010-Present

- Establish a second victims emotional peer support program for Johns Hopkins Hospital
- Develop and administer a cross sectional survey to determine the prevalence of the second victims in the Department of Pediatrics in a pilot project
- Collect and analyze the survey results, including quantitative and qualitative analysis

- Create and manage an internal campaign for the second victims peer response team that includes the development of tools for front-line employees to identify second victims
- Establish a training program and curriculum for second victims peer support response team

Student [Observership] July 2010

International Medical Center, Jeddah, Saudi Arabia

My role was to observe processes in the Emergency Department as they relate to throughput issues.

- Shadowed administrative personnel, including the Chief Operating Officer and registration staff
- Observed outpatient encounters with clinical and administrative staff
- Identified bottlenecks in the registration process in the Emergency Department and offered recommendations for process improvement

Administrative Intern September 2008-May 2009

Virginia Hospital Center, Arlington, VA, USA

My role was to lead quality improvement departmental and organization-wide projects within the hospital.

Emergency Department Projects

- Interviewed prospective employees through a behavioral interview panel and offered feedback to the Associate Vice President on potential candidates
- Provided mentorship and feedback of professional interactions and observations to Associate Vice President
- Worked on redesigning the supply chain in the Emergency Department to improve work and patient flow processes and capture charges

Organization-Wide Projects

- Compiled quality data and summarized findings for a Joint Commission accreditation site visit
- Developed and created process maps and flow charts for patient admissions to improve workflow
- Supported the Chief Nursing Officer in leading an organizational initiative for standardizing patient outcomes
- Assisted with the redesign of the Disaster Preparedness Plan and the Triage Patient Care area
- Performed literature reviews on best practices for projects that complement organization's initiatives, including improving workflow processes, reducing wait times, etc.

RESEARCH EXPERIENCE

Research Assistant.....August 2010-August 2012

Johns Hopkins University: Bloomberg School of Public Health, Baltimore, MD

Literature Review on Quality in the Rural Health System August 2010-August 2012

- Evaluated and analyzed quality and patient safety data for rural hospitals
- Assessed impact of health policy for rural hospitals in developed and developing countries
- Developed a literature review on historic and current policy changes for quality in rural hospitals
- Compiled publically reported indicators from the Centers of Medicare and Medicaid's Hospital Compare database

Analyzing Indicators in Hospital Compare Data April 2011-April 2012

- Evaluated quality in relation to publically reported data from approximately 100 rural hospitals within the U.S.

Research Assistant September 2008-January 2009

Georgetown University: School of Nursing and Health Studies, Washington, D.C.

- Published a study on calculating the return on investment (ROI) and measuring the business value of information technology
- Conducted a literature review and computed return on investment calculations on Excel
- Analyzed causation and association of health information technologies

PEER REVIEWED PUBLICATIONS

Alemi, F.; Zargoush, M.; Oakes, J. L. Jr.; & **Edrees, H.** (March 2011). "A Simple Method for Causal Analysis of Return on IT Investment." *Journal of Healthcare Engineering*, 2(1): 43-54.

Edrees, H.H.; Paine, L.A.; Feroli, E.R.; Wu, A.W. (March 2011). "Health Care Workers as Second Victims of Medical Errors." *Polish Archives of Internal Medicine*, 121(4): 101-107. [Invitational]

- Featured on the U.S. Department of Health and Human Services website for Agency for Healthcare Research & Quality—<http://psnet.ahrq.gov/resource.aspx?resourceID=21906>

MANUSCRIPTS IN PREPARATION

Edrees, H. (2014). "Does One Size Fit All? Assessing the Need for Organizational Second Victim Support Programs"

Edrees, H. (2014). "Do Maryland Hospitals Support Second Victims: Collective Insights from Patient Safety Leaders in Maryland Hospitals"

Edrees, H. (2014). "Implementing the RISE Second Victim Program at the Johns Hopkins Hospital"

Edrees, H. et al. (2014). "Behind the Curtain: Examining Influences on Speaking up Among Healthcare Providers in the UAE"

Latif, A.; **Edrees, H.**; et al. (2014). "Implementing a Multifaceted Intervention to Decrease Central Line-Associated Bloodstream Infections in SEHA ICUs: The Abu Dhabi Experience"

UNPUBLISHED TECHNICAL REPORTS

Weaver, S. J., **Edrees, H.**, & Ismail, N. (November, 2013). Mindfully developing a culture of safety through the Comprehensive Unit-based Safety Program (CUSP): Report and debriefing summary from the "Safety Culture Site Visit" to Abu Dhabi, UAE. [Unpublished technical report].

Goeschel, C.A.; **Edrees, H.**; & Berenholtz, S.M. (June, 2013). "Debriefing Report for SEHA Hospitals and Teams" from 3-Day Workshop to SEHA Hospital Teams in Abu Dhabi, UAE. [Unpublished technical report].

Edrees, H.; Goeschel, C.A.; Berenholtz, S.M.; & Latif, A. (June, 2012). "Debriefing Report for SEHA Hospitals and Teams" from Initial Site Visit to Abu Dhabi, UAE. [Unpublished technical report].

NATIONAL PRESENTATIONS

Edrees, H.; Kent, P.; Berenholtz, S.M.; Goeschel, C. A.; Latif, A.; Kelly, B.; Attallah, H.; Weaver, S.; Jovanovic, B.; Yang, T.; AlObaidli, A. (June 6, 2014) "Implementing the Johns Hopkins CUSP program to reduce central line associated bloodstream infections in SEHA ICU's—Abu Dhabi" Johns Hopkins Hospital 5th Annual Patient Safety Summit: Baltimore, Maryland [Poster Presentation—Accepted]

Edrees, H.; Mohd Ismail, M.N.; Berenholtz, S.M.; Goeschel, C. A.; Latif, A.; Kelly, B.; Attallah, H.; Weaver, S.; Jovanovic, B.; Yang, T.; Kent, P.; AlObaidli, A. (May 14-16, 2014) "Implementing the Johns Hopkins CUSP program to reduce central line associated bloodstream infections in SEHA ICU's—Abu Dhabi" 16th Annual National Patient Safety Foundation Patient Safety Congress: Orlando, Florida [Poster Presentation—Accepted]

Edrees, H.H.; Connors, C.; Norvell, D.; Paine, L.A.; Wu, A. W. (December 8, 2013). "Implementing RISE: A Second Victim Support Structure at Johns Hopkins." Institute for Healthcare Improvement (IHI)-National Forum 2013: Orlando, Florida [Poster Presentation]

Edrees, H.; Berenholtz, S.M.; Goeschel, C. A.; Latif, A.; Kelly, B.; Attallah, H.; Weaver, S.; Jovanovic, B.; Yang, T.; Kent, P.; AlObaidli, A. (December 4, 2013) “Implementing the Johns Hopkins CUSP program to reduce central line associated bloodstream infections in SEHA ICU’s—Abu Dhabi” 15th Annual Department of Anesthesiology & Critical Care Medicine Research Day: Johns Hopkins Hospital, Baltimore, Maryland [Poster Presentation]

Edrees, H.H.; Connors, C. (November 7, 2013). “RISE: Resilience In Stressful Events.” Armstrong Institute Resident Scholars (AIRS) Fellowship: Johns Hopkins Hospital, Baltimore, Maryland [Speaker Presentation]

Edrees, H.H.; Connors, C. (June 21, 2013). “RISE: Developing a Peer Support Structure at JHH.” Johns Hopkins Hospital 5th Annual Patient Safety Summit: Baltimore, Maryland [Poster Presentation]

Edrees, H.H.; Connors, C. (May 2013). “RISE: Resilience In Stressful Events.” Johns Hopkins Hospital Patient Safety Fellows: Baltimore, Maryland [Speaker Presentation]

Edrees, H.H.; Connors, C. (April 5, 2013). “Developing a Second Victim Support Structure: Implementing RISE at the Johns Hopkins Hospital.” Maryland Patient Safety Foundation: Annual Conference. [Poster Presentation]

Edrees, H.H. (June 2012). “Supporting the Care Givers: Second Victims in Healthcare.” West Virginia Volunteer Fire & Rescue Squad. [Speaker Presentation]

Edrees, H.H.; Connors, C. (June 1, 2012). “Implementation of the Second Victim Support Program: RISE.” Johns Hopkins Hospital 4th Annual Patient Safety Summit: Baltimore, Maryland [Speaker Presentation]

Edrees, H.H.; Connors, C. (May 23-25, 2012). “Developing a Second Victim Support Structure: Implementing RISE at the Johns Hopkins Hospital.” National Patient Safety Foundation (NPSF) Annual Summit: Washington DC. [Speaker Presentation]

Edrees, H.H.; Connors, C.; Norvell, M. (May 10-11, 2012). “Teaching Successful People: The Development of a Peer Responder Curriculum.” Institute for Healthcare Improvement (IHI) & Medically Induced Trauma Support Services (MITSS) Conference: Boston, Massachusetts [Speaker Presentation]

Edrees, H.H.; Connors, C. (May 2012). Johns Hopkins Hospital Patient Safety Fellows: Baltimore, Maryland [Speaker Presentation]

Edrees, H.H. (April 3, 2012). Maryland Patient Safety Center (MPSC) Conference: Baltimore, Maryland [Poster Presentation]

Edrees, H. (January 2011) “Practical Suggestions for a CUSP Champion” at the Johns Hopkins Medicine Patient Safety. Johns Hopkins Hospital: Baltimore, MD [Invitational]

INTERNATIONAL PRESENTATIONS

Edrees, H.H.; Kelly, B. (June 2-4, 2014). “Implementing the Johns Hopkins Armstrong Institute Model for Quality and Patient Safety at SEHA (Abu Dhabi Health Services Company).” Hospital Build & Infrastructure Middle East: 4th Annual Healthcare Management Conference, Dubai, UAE [Speaker Presentation—Abstract Accepted]

Edrees, H.H.; Connors, C.; Norvell, D.; Paine, L.A.; Wu, A. W. (April 8-11, 2014) “Implementing RISE: A Second Victim Support Structure at Johns Hopkins.” British Medical Journal (BMJ) & Institute for Healthcare Improvement (IHI): International Forum on Quality and Safety in Healthcare, Paris, France [Poster Presentation]

Edrees, H.; Berenholtz, S.M.; Goeschel, C. A.; Latif, A; Kelly, B.; Attallah, H.; Weaver, S.; Jovanovic, B.; Yang, T.; Kent, P.; AlObaidli, A. (April 8-11, 2014) “Implementing the Johns Hopkins CUSP program to reduce central line associated bloodstream infections in SEHA ICU’s—Abu Dhabi” British Medical Journal (BMJ) & Institute for Healthcare Improvement (IHI): International Forum on Quality and Safety in Healthcare, Paris, France [Poster Presentation]

Edrees, H.H.; Kelly, Bernadette. (January 27-28, 2014). “Implementing the Johns Hopkins Armstrong Institute Model for Quality and Patient Safety at SEHA (Abu Dhabi Health Services Company).” Arab Health 2014: 5th Middle East Quality Management in Healthcare, Dubai, UAE [Speaker Presentation]

Goeschel, C.; Berenholtz, S.; & **Edrees, H.H.** (May 13-15, 2013). “Armstrong Institute Patient Safety Workshop.” SEHA—Abu Dhabi Health Services Company, Abu Dhabi, UAE [Speaker Presentations]

Edrees, H. H. (December 2011). “Launching Your Career in Research.” SEHA 3rd Annual Research Conference. SEHA—Abu Dhabi Health Services Company, Abu Dhabi, UAE [Invitational]

OTHER PUBLICATIONS

Edrees, H. H. (Oct-Nov 2010). “Ramadan in Saudi Arabia.” *AlMubtaath Magazine*, 192: 80-81.

Edrees, H. H. (Jun-Jul 2010). “Interview with Author Dr. S. Rob Sobhani on King Abdullah of Saudi Arabia: A Leader of Consequence.” *AlMubtaath Magazine*, 191: 28-30.

TEACHING EXPERIENCE

Teaching Assistant

Johns Hopkins University: Bloomberg School of Public Health, Baltimore, MD

Patient Safety & Medical Errors

3rd Term.....	January-March 2013
3rd Term.....	January-March 2012
Winter Institute (Abu Dhabi doctoral cohort)	December 2011-January 2012
Summer Institute	June 2012

Quality of Medical Care

1st Term	August-October 2012
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Teaching Assistant	February 2013
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Johns Hopkins Medicine Armstrong Institute for Patient Safety & Quality, Baltimore, MD
Patient Safety Certificate Program

ADDITIONAL CERTIFICATES

Forum on Emerging Topics in Patient SafetySeptember 2013
Armstrong Institute for Patient Safety & Quality, Johns Hopkins Medicine, Baltimore, MD, USA

Certificate, Quality, Patient Safety, & Outcomes ResearchMay 2013
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA

Collaborative Institutional Training Initiative (CITI) Certificate Improvement2013; 2011
University of Miami, Miami, FL, USA

Patient Safety Certificate ProgramFebruary 2013
Armstrong Institute for Patient Safety & Quality, Johns Hopkins Medicine, Baltimore, MD, USA

Certificate, Enhancing Caregiver Resilience: Burnout and Quality ImprovementJanuary 2011
Duke University Health System, Durham, NC, USA

Certificate, Your Research Career.....January 2011
Johns Hopkins Medicine, Baltimore, MD, USA

Certificate, Patient Safety Practitioner October 2010
Johns Hopkins Medicine, Baltimore, MD, USA

Certificate, Human ResourcesMay 2009
Society for Human Resource Management (SHRM), and
George Mason University, Fairfax, VA, USA

Certificate, Project ManagementApril 2008
Georgetown University, Washington, D.C., USA

PROFESSIONAL AFFILIATIONS

Student AssociateJanuary 2012-Present
Institute for Healthcare Improvement (IHI)

Student Associate April 2013-Present
Academy Health

Student Associate January 2008-January 2010
American College of Healthcare Executives (ACHE)

CONFERENCE ACTIVITY

British Medical Journal (BMJ) & Institute for Healthcare Improvement (IHI), Paris, FranceApril 2014
International Forum on Quality and Safety in Healthcare

Arab Health Congress, Dubai, UAE.....January 2014
5th Middle East Quality Management in Healthcare

Institute for Healthcare Improvement (IHI), Orlando, FL, USADecember 2013
25th Annual National Forum on Quality Improvement in Healthcare

The International Society for Quality in Health Care (ISQua), Edinburgh, UK October 2013
30th International Conference in Quality and Safety in Population Health and Healthcare

American Public Health Association (APHA), Boston, MA, USA..... November 2013
141st Annual Meeting and Exposition

US-Saudi Business Opportunities Forum, Los Angeles, CA, USASeptember 2013
3rd Business Opportunities Forum
Role: Student Ambassador & Program Presenter (in Arabic & English)

Academy Health, Baltimore, MD, USA.....June 2013
Annual Research Meeting

Institute for Healthcare Improvement (IHI), Orlando, FL, USADecember 2012
24th Annual National Forum on Quality Improvement in Healthcare

US-Saudi Business Opportunities Forum, Atlanta, GA, USADecember 2011
2nd Business Opportunities Forum

Abu Dhabi Health Services Company (SEHA), Abu Dhabi, UAEDecember 2011
3rd Annual Research Conference

Medically Induced Trauma Support Services (MITSS), Boston, MA, USA..... November 2011
Implementation of Support Programs After Adverse Events

American College of Healthcare Executives (ACHE), Chicago, IL, USA.....March 2009
Congress on Healthcare Leadership

American College of Healthcare Executives (ACHE), Chicago, IL, USA.....March 2008
Congress on Healthcare Leadership

LEADERSHIP EXPERIENCE

Doctorate of Public Health Student RepresentativeOctober 2010- December 2012
Health Policy and Management Student Coordinating Committee (HPM SCC)

- Represent the doctoral program within the Health Policy & Management (HPM) Department
- Engage students to participate in academic related projects—departmental and school wide

Community Outreach Chair January 2008-December 2008
Healthcare Executives of Georgetown University (HEGU)

- Raised donations and created the HEGU Team to participate in national health awareness event

COMMUNITY INVOLVEMENT

Student Volunteer for Saudi Ministry of Higher Education Graduation ProgramMay 2013
Saudi Arabian Cultural Mission, Fairfax, VA

Blood Services Volunteer..... February 2006-September 2006
American Red Cross: Greater Chesapeake & Potomac Blood Services Region, Fairfax, VA

- Provided consultations to blood donors on post-donation reactions
- Raised awareness on importance of blood donations

HONORS, AWARDS, AND SCHOLARSHIPS

Scholarships:

Academic Scholarship
Institute for Healthcare Improvement/British Medical JournalRecipient 2014

Academic Scholarship
Institute for Healthcare Improvement.....Recipient 2012; 2013

Academic/Full Tuition Scholarship
Saudi Arabian Ministry of Higher Education Recipient 2003-May 2014

Honors and Awards:

Presenter Recognition..... Awarded December 2013
Institute for Healthcare Improvement

Speaker Recognition Awarded December 2011
Abu Dhabi Health Services Company (SEHA)

Student Volunteer Recognition Awarded May 2013
Saudi Arabian Cultural Mission (SACM)

Student Ambassador Award
US-Saudi Business Opportunities Forum..... Awarded September 2013

Student Volunteer Award Awarded December 2011
US-Saudi Business Opportunities Forum

Upsilon Phi Delta Honor Society Inducted May 2009
Georgetown University

Dean's List Awarded 2005-2007
George Mason University

SKILLS

Language Skills: English: Reading, Writing, Speaking
Arabic: Native Language

Computer Skills: Proficient in Microsoft Word, Excel, Power Point
Proficient in Microsoft Project

Statistical Packages: Knowledge and use of Stata, NVivo10, and TreeAge Pro 2011

Research Skills: Effective use of periodical and journal databases for research purposes
Strong writing skills

Communication Skills: Strong speaking, writing, and interpersonal skills

Social Media: Proficient in Facebook, Twitter, LinkedIn, Medconcert